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The report lists the 622 research and demonstration grants awarded by the U. S. Department of Health, Education, and Welfare during the period from July 1, 1966, to June 30, 1967. Each entry provides the title of the grant, the name and address of the grantee, the date the grant was awarded or the inclusive period for which the funds were made available, indication whether the grant was an initial one or a renewal, the amount of the grant, and a summary of the project. A symbol indicates the agency making the award (Social and Rehabilitation Service, Public Health Service, Office of Education, and agencies within them). Grants are arranged according to the following classifications: etiology, epidemiology, pathophysiology, rehabilitation, and medical treatment), and other. An introduction gives the functional definitions for the classification terms used, and a subject index of grants is included. Part I of the report, a separate publication, lists grants in training and construction. (DT)

JAN 30 1968.

Programs for the Handicapped

Mental Retardation

GRANTS

PART II Research and Demonstration

FISCAL YEAR — 1967

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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Title VI of the Civil Rights Act of 1964 states: "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." Therefore, the mental retardation grants program, like every program or activity receiving financial assistance from the Department of Health, Education, and Welfare, must be operated in compliance with this law.

Programs for the Handicapped

Mental Retardation GRANTS

PART II Research and Demonstration

FISCAL YEAR - 1967
NUMBER 67-15

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Office of the Secretary • Assistant Secretary for Individual and Family Services
Washington, D.C. September, 1967

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INTRODUCTION

This booklet is Part II of a two-part publication which lists mental retardation grants awarded by the U.S. Department of Health, Education, and Welfare in fiscal year 1967 (July 1, 1966 to June 30, 1967). This part includes those grants awarded in the areas of Research and Demonstration. Part I included grants numbered 1-1008 which were awarded in fiscal year 1967 in the general areas of Training and Construction.

A system of classification has been devised to serve a twofold purpose. First, such a classification system will, hopefully, enable the Department to determine the nature and scope of its research effort and will provide the Department with an opportunity to identify existing gaps in this effort. Second, by arranging the grants in categories the reader should be able to locate his areas of interest more readily.

Special recognition is given here to the National Institutes of Health Staff Group on Research and Training Interests in Mental Retardation, chaired by Dr. Theodore Tjossem, of the National Institute of Child Health and Human Development. The NIH Staff Group devised this classification system and was assisted immeasurably by Dr. Edgar Bering of the National Institute of Neurological Diseases and Blindness, who developed the basic classification system and definitions which the NIH Staff Group adopted after making minor modifications. The NIH Staff Group is composed of NIH staff personnel and representatives of Departmental agencies having mental retardation research programs.

It is recognized that there are short-comings in this classification system, but it does represent a step forward from previous efforts. There are plans for reviewing and improving the classification system to be used next year.

The classification system used for the 622 research and demonstration project grants included in this publication is as follows:

1) Etiology
2) Epidemiology
3) Pathophysiology
4) Diagnosis and/or Evaluation
5) Prevention
6) Amelioration
   a. Education
   b. Vocational Rehabilitation
   c. Medical Treatment
7) Other

The NIH Staff Group agreed upon functional definitions for the terms

used in the classification system. The definitions are included here for purposes of information.

1. Etiology includes all factors which cause mental retardation. These may be specific disease entities, trauma poisonings, or other similar factors. All research directly and uniquely related to a single disease agent is included.

2. Epidemiology includes those studies which relate to epidemiology of mental retardation, but not any of the specific diseases. Specific disease entities which might be etiotogic agents of mental retardation have their epidemiology studies included under that disease alone.

3. Pathophysiology intends to consider all changes and events which are related to mental retardation and independent of etiology. It is possible that some of the projects included here apply to several different diseases.

4. Diagnosis and/or Evaluation includes those projects which are related to the evaluation of brain function and the mentally retarded state, rather than a specific disease entity which might cause mental retardation. Diagnostic procedures which are specific for a disease entity are included under studies of that disease under "Etiology".

5. Prevention includes those projects aimed at the prevention of a disease which might possibly result in mental retardation. The disease may be prevented by elimination of some vector or etiological agent.

6. Amelioration includes those projects relating to the training, education, rehabilitation of the retarded or in effect helping them to pursue a better life or to better adjust to their situation.

7. Other includes those projects which do not appear to clearly fall within the previous 6 classification categories. (Note: A1150 of the demonstration grants funded by the Division of Mental Retardation, Social and Rehabilitation Service, have been included under "Other").

Included also for the first time with each project grant listed is a brief statement describing the purpose of the research or demonstration project. This statement is a summary of a project grant abstract secured from Science Information Exchange.

There are some project grants with the notation "No abstract supplied." This means that Science Information Exchange was not furnished with the project grant abstract report by the grantee and hence no narrative material was available.

The subject index on page 104 classifies the project grants by the narrative abstract statement sent by the grantee to Science Information Exchange. The subject in the index is followed by the number assigned to the project grant which will enable the reader to locate easily his area of interest.

Additional information concerning the grants shown may be secured from the grantee or the agency awarding the grant.

A full discussion of the Department's mental retardation programs will be found in Mental Retardation Activities of the Department of Health, Education, and Welfare, January 1967. This is available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, price fifty-five cents per copy.

Explanation of Format

The title of the grant appears first followed by the name and address of the grantee. The dates indicate either the date the grant was awarded, or the inclusive dates for which funds were made available. There is also an indication of whether the grant is an initial one or a renewal. The amount of money represents only the funds awarded in the fiscal year 1967.

The symbol in parenthesis following each listing indicates the agency making the award:

SRS: Social and Rehabilitation Service

(Note: Includes those grants awarded by agencies of the Department which were realigned by the reorganization of August 15, 1967. Children's Bureau, Division of Mental Retardation, and Vocational Rehabilitation Administration are shown throughout with the designation Social and Rehabilitation Service, SRS)

PHS: Public Health Service

NICHD: National Institute of Child Health and Human Development

NINDB: National Institute of Neurological Diseases and Blindness

NIMH: National Institute of Mental Health

OE: Office of Education

Requests for information may be addressed to the agency listed above, Department of Health, Education, and Welfare, Washington, D.C. 20201.

Table of Contents

	Page
Introduction	
Explanation of Format	
Research and Demonstration Grants	
Etiology	1
Epidemiology	15
Pathophysiology	16
Diagnosis and/or Evaluation	44
Prevention	52
Amelioration	53
a. Education	55
b. Vocational Rehabilitation	66
c. Medical Treatment	80
Other	86
Subject Index	104

Etiology

1009. ABO ERYTHROBLASTOSIS-IMMUNOLOGIC STUDIES (RO1 02874-01); Huntley, Carolyn C., Wake Forest University, Winston-Salem, N.C.; 5/67-4/70; (Initial); $30,406. (NICHD)
This research proposes to study the obstetrical and newborn patients at the University of Puerto Rico Hospital and at the North Carolina Baptist Hospital with reference to hemolytic disease of the newborn.

1010. BIOLOGIC AND ENVIRONMENTAL FACTORS IN CHILD DEVELOPMENT (PO1 00718-08); J. Yerushalmy, Kaiser Foundation Hospitals, Oakland, California; 4/67-3/69; (Renewal); $434,299. (NICHD)
This research proposes to investigate the relationship of medical, genetic, biologic, and environmental factors in the parents--including events during pregnancy, labor and delivery--to normal and abnormal development of offspring and to occurrence of neurological abnormalities.

1011. BLOOD GROUPING STUDIES (RO1 00720-07); J. Yerushalmy, Kaiser Foundation Hospitals, Oakland, California; 4/67-3/69; (Renewal); $79,764. (NICHD)
This research proposes to investigate blood samples of husband, wife, and infant and to perform detailed examination for blood grouping, typing, and blood group antibody tests. It will thus be possible to study the effects of subtle and common blood group incompatibilities producing potential disease in the infant and to study the inheritance of blood groups in families.

1012. CAUSES OF MENTAL RETARDATION IN INFANCY (R01 02387-01); Egan, Thomas J., Children's Memorial Hospital, Chicago, Illinois; 10/66-9/69 (Initial); $18,182. (NICHD)
This research proposes to evaluate the importance of accumulation of galactitol in the tissues of galactose-loaded rats in production of pathology in the organs to be examined, such as the liver, kidney, brain, skeletal muscle and heart.

1013. CYTOGENETICS IN MENTAL DEFECTIVES WITH ANOMALIES (R01 01020-03); Summitt, Robert L., University of Tennessee, Memphis, Tenn.; 10/66-9/67 (Renewal); $15,215. (NICHD)
This research proses to discover chromosomal aberrations, provide genetic linkage information and provide information for purposes of genetic counselling, and further characterize the normal human karyotype.

1014. CYTOGENETICS OF MULTIPLE CONGENTIAL ANOMALIES IN MAN (1) (RO1-00338-06S1; (2)(RO 1 00338-07); Patau, Klaus, University of Wisconsin, Madison, Wisconsin; (1) 10/66-4/73; (2) 5/67-4/73; (Renewal); (1) $3,877; (2) $38,324. (NICHD)
This research proposes to continue with a long-range "blind" study on the kind and frequency of chromosomal abnormalities

found in normal healthy control persons and in patients who are mentally retarded, who have at least 3 other anomalies and who cannot clinically be diagnosed as belonging to any known syndrome.

1015. CYTOGENETIC STUDIES IN MENTAL RETARDATION (RO1 00339-07); Breg, W. Roy, Southbury Training School, Southbury, Connecticut; 5/67-4/69 (Renewal); $25,590. (NICHD)

This research concerns chromosomal studies done on selected cases of mental retardation and, when indicated, on their relatives.

1016. EFFECT OF DIETARY PROTEIN ON PREMATURELY BORN INFANTS (1)(RO1 02032-01S1);(2)(RO1 02032-02); Davidson, Murray, Bronx-Lebanon Hospital Center, Bronx, New York; (1) 2/67-4/69; (2) 5/67-4/69; (Renewal) (1) $11,357; (2) $57,230; (NICHD)

This research concerns the belief that only a correlated multifaceted approach will be useful to establish the optimal level of protein in the diet of prematurely born infants.

1017. EFFECT OF MALNUTRITION IN EARLY LIFE (1)(RO1 02581-06A1S1; (2) (RO1 02581-07); Barnes, Richard H., Cornell University, Ithaca, New York; (1) 10/66-3/71; (2) 4/67-3/71 (Renewal); (1)$8,280; (2) $41,560; (NICHD)

This research proposes to study the effects of malnutrition in early life upon subsequent physical and mental development in experimental animals (particularly rats and pigs).

1018. ENVIRONMENTAL LEAD INTOXICATION IN CHILDREN (RO1 01584-03); Hardy, Harriet L., Massachusetts Institute of Technology, Cambridge, Massachusetts; 4/67-3/70 (Renewal); $9,342. (NICHD)

This research proposes to investigate the possible hazard of repeated lead intake from environmental sources--the intake too low to produce recognizable lead poisoning at the time. There is considerable literature notably from Europe suggesting that acute and chronic lead intoxication leads to not only brain damage but if it occurs in adult females may damage progeny.

1019. ENZYME STUDIES IN CULTIVATED FETAL CELLS (RO1 02752-01); Nadler, Henry L., Northwestern University, Evanston, Illinois; 1/67-12/69 (Initial); $10,415. (NICHD)

This research proposes to show the deliniation of biochemical abnormalities in fetal cells, potential source of material to study normal and alternate metabolic pathways, diagnosis during pregnancy and early institution of therapy of these disorders.

1020. ETIOLOGY OF CHROMOSOMAL ABERRATIONS (RO1 01682-02); Motulsky, Arno G., University of Washington, Seattle, Washington; 7/66-6/68 (Renewal); $44,772. (NICHD)

This research concerns an investigation into the role of "auto-immunity" in causation of chromosomal errors. Clinico-genetic studies will be pursued on parents and other relatives of patients with mongolism, various sex chromosomal aberrations

and habitual abortions as compared with suitable controls to assess the frequency of thyroid and other types of autoimmune diseases.

1021. GALACTOSEMIA GENETICS, INCIDENCE AND PATHOPHYSIOLOGY (RO1 01974-02); Beutler, Ernest, City of Hope Medical Center, Duarte, California; 2/67-1/69 (Renewal); $42,913. (NICHD)

This research concerns the screening for galactose-1-phosphate uridyl transferase deficiency and mutation effecting the electrophoretic mobility of glucose-6-phosphate dehydrogenase in the offspring of mice being treated with radiation or the chemical mutagenethyl methane sulfonate. The chromatic graphic characteristics of human red cell galactose-1-phosphate uridyl transferase are under study.

1022. GENETIC FACTORS IN HUMAN SEX DEVELOPMENT (RO1 00516-07); Miller, Orlando Jack; 10/66-9/70 (Renewal); $75,652. (NICHD)

This research concerns the relation between chromosomal abnormalities and sex differentiation; the role of chromosomal abnormalities in intersexuality, other developmental sexual abnormalities or reproductive failure; the etiology of these chromosomal abnormalities; identification of individual chromosomes mapping gene loci to specic chromosomes; and use of new techniques to learn more about cell division.

1023. HASHIMOTO'S STRUMA AND CONGENITAL HYPOTHYROIDISM (1)(RO1 00688-09S1; (2)(RO1 0688-10); Beierwaltes, William H., University of Michigan, Ann Arbor, Michigan; (1) 7/66-3/67; (2) 4/67-3/70; (Renewal); (1) $7,776; (2)$37,881. (NICHD)

This research concerns: (1) the study of lymphoid thyroiditis (simulating Hashimoto's struma in the human) in an inbred beagle colony; and (2) in humans, effect of dietary iodine on the incidence of Hashimoto's thyroiditis and the incidence of low thyroid reserve from Hashimoto's thyroiditis in mothers of cretins and mothers with demonstrable circulating antibodies with no cretinous offspring.

1024. INHERITANCE OF RED CELL AND PROTEIN FACTORS IN FAMILIES (RO1 02791-01); Diamond, Louis K., Blood Grouping Laboratory of Boston, Boston, Mass.; 12/66-11/68 (Initial); $38,251. (NICHD)

This research is a continuation of a project formerly entitled "An Immunogenetic Study in the maternal and Infant Health Programs at the Boston Lying-In Hospital" in order to complete the study of the blood group factors of both blood cells and plasma proteins in more than 1500 complete families, collected over the last 5 years.

1025. MENTAL RETARDATION CLINICAL RESEARCH CENTER (PO2 00370-06); Kugel, Robert, University of Nebraska, Omaha, Nebraska; 10/66-9/68 (Renewal); $316,902. (NICHD)

This research concerns provision of a facility to promote clinical research for determination of the causes, clarification of diagnosis, and development of more useful techniques and procedures for the prevention and treatment of mental retardation, and provision of a setting for teaching and training of pertinent disciplines at the undergraduate, graduate, and postgraduate levels.

1026. NEUROLOGICAL DEVELOPMENT--INFANTS OF DIABETIC MOTHERS (RO1 01813-06); Hubbell, John P., Jr., Boston Hospital for Women, Boston, Mass.; 6/67-5/72 (Renewal); $27,693. (NICHD)

This research involves the collection of data during pregnancy, labor and delivery of pregnant women with diabetes. The infants after birth are examined and followed in accordance with the protocol of the Collaborative Neonatal Study of the NINDB. The ultimate aim is to determine the long-range neurologic outcome in 500 live-born infants and to try to correlate outcome with events during the perinatal period.

1027. OBSTRUCTION AND THE RESPIRATORY DISTRESS SYNDROME (RO1 02762-01); Milley, Paul S., State University of New York, Buffalo, New York; 7/66-6/67 (Initial); $5 100. (NICHD)

This research proposes to gain some insight into the etiology of the Respiratory Distress Syndrome of the newborn. Several different investigations will be conducted concurrently and are based on the working hypothesis that obstruction high in the respiratory tract is an important etiologic factor in this condition.

1028. PRENATAL EFFECTS OF TRANQUILIZERS ON OFF-SPRING (1)(RO1 00714-02S1; (2)(RO1 00714-03); Seager, Lloyd D., University of Arkansas, Little Rock, Arkansas; (1) 1/66-12/67; (2) 1/67-12/67 (Renewal); (1)$1,321; (2) $21,752; (NICHD)

This research proposes to continue studies on the chronic effects of centrally acting drugs with particular reference to tranquilizing agents. Male and female rats will be used for these studies to be carried through 4 generations.

1029. PRODUCTION OF KERNICTERUS IN NEWBORN RABBITS (RO1 01319-03); Rhodes, Robert S., Meharry Medical College, Nashville, Tennessee; 1/67-12/67; (Renewal); $10,120. (NICHD)

This research concerns evaluation of experimental and control brains using the techniques of histochemistry, routine histopathology, immunofluorescence and electron microscopy. The lesions produced will be studied intensively and the nature of the pigment present in the brains will be confirmed.

1030. RED CELL AND SERUM FACTORS AS GENE MARKERS IN CHILDREN (RO1 02723-01); Diamond, Louis K., Blood Grouping Laboratory of Boston, Inc., Boston, Mass.; 12/66-11/69 (Initial); $42,022. (NICHD)

This research proposes to determine the location of structural and/or refractory genes on human autosomes using 30 or more red cell agglutinogens and 10 or more plasma protein types. The blood samples will be obtained from patients with chromosomal aberrations characterized by either extra or deficient chromosomal material.

1031. STRUCTURAL AND DEVELOPMENTAL GENES IN CHILDREN (RO1 02724-01); Gerald, Park S., Children's Hospital Medical Center, Boston, Mass.; 1/67-12/69 (Initial); $33,070. (NICHD)

This research proposes to determine the organization of genes (both structural and "developmental" genes) on the human chromosomes, specifically the correlation of individual

genetic loci (and linkage groups) with the morphologically identifiable chromosomes to which they are linked.

1032. STUDIES ON THE MECHANISMS OF INFECTIOUS TERATOGENESIS (RO1 01687-02); Alford, Charles A., University of Alabama, Birmingham, Alabama; 9/66-8/68 (Renewal); $20,211. (NICHD)

This research proposes to investigate the viral-host relations in congenital infections that result in the disruption of embryogenesis in man (with special reference to rubella and cytomegalovirus).

1033. STUDY OF INFANTS HETEROZYGOUS FOR THE GENE PKU (RO1 01576-03); Schneider, Albert John, State University of New York, Syracuse, New York; 6/67-5/68 (Renewal); $23,338. (NICHD)

This research concerns the standardization of procedures and biochemical criteria for the identification of newborn infants with heterozygous inheritance for phenylketonuria; description of the natural history of the heterozygote; evaluation of the therapeutic implications; delineation of biochemical similarities between heterozygotes and homozygotes; and an estimation of incidence of heterozygosity.

1034. THE EFFECT OF COXSACKIE VIRUS INFECTION IN PREGNANCY (1)(RO1 01193-03S1; (2) (RO1 01193-03S2); Soike, Kenneth F., Jr., Union University Albany, New York; (1) 2/67-8/67; (2) 5/67-8/67 (Renewal); (1)$1,414; (2)$3,439. (NICHD)

This research concerns the effect of infection with Coxsacki B3, B4 and B5 viruses upon the pregnant mouse. The effect of fetal infection shall be investigated wherein mice surviving infection shall be mated in an effort to demonstrate a viral induced genetic defect in mice derived from such matings.

1035. TRANSFER OF VIRAL INFECTIONS ACROSS THE PLACENTA (RO1 02289-01); Hildebrandt, Richard J., University of Florida, Gainesville, Fla.; 7/66-6/69 (Initial); $50,347. (NICHD)

This research focuses on the transfer of cytomegalovirus across the placenta in various species of mammals, using virologic techniques which are being used in the laboratory of the Section on Infectious Diseases. Evidence has implicated this virus in infections of both the fetus and the newborn.

1036. DELAYED FEEDBACK AND CONFORMITY OF BEHAVIOR (MH-8538-03); Zimbardo, Philip G., New York University, New York, N.Y.; 5/67 (Renewal); $7,906. (NIMH)

This research focuses upon an analysis of some stimulus variables and response dimensions in the delayed auditory feedback (DAF) process itself; personality and motivational variables which produce marked individual differences in response to DAF; the role of several important variables and processes in the attitude-change situation which are amenable to study by use of DAF.

1037. EFFECT OF A NEW INSTITUTION ON A WAITING LIST COHORT (MH-2035-03); Kott, Maurice G., New Jersey State Department Institutes and Agriculture, Trenton, N.J.; 2/67 (Renewal); $33,700. (NIMH)

This research attempts to ascertain the effect of opening a new 1,000 bed institution upon a waiting list cohort of some 1528 persons. The population is being followed from January 1, 1965, to June 30, 1967, as it relates to acceptance of placement within a state institution for the mentally retarded, refusal of placement, transfer from one institution to another, withdrawal from the waiting list, and those who are actively awaiting bedspace.

1038. INTELLECTUAL DEVELOPMENT AND ORPHANAGE EXPERIENCE (MH-10226-02); Hunt, J. McVicker, University of Illinois, Urbana, Illinois; 9/66 (Renewal); $13,065. (NIMH)

This research concerns whether increasing the variability of auditory and visual input during the first year decrease the degree to which infants in an orphanage are retarded, and whether adolescents raised in the same orphanage setting show greater intellectual defects than family-reared children.

1039. INTELLECTUAL STIMULATION OF CULTURALLY DEPRIVED INFANTS (MH-9224-02); Furfey, Paul H., Catholic University of America, Washington, D.C.; 9/66 (Renewal); $101,769. (NIMH)

This research proposes to study 2 groups of culturally deprived, male, Negro infants. At the age of 14 months they are tested for intelligence on the Bayley Scales. Infants in 1 group are visited by staff members (called "tutors") for 1 hour a day, 5 days a week. The second group is not visited by tutors. At 21, 27, and 36 months, subjects in both groups are retested to see whether the tutored infants show more intellectual progress than untutored.

1040. SOCIAL-CULTURAL ASPECTS OF MENTAL RETARDATION (MH-9237-01); Haywood, Carl H., George Peabody College for Teachers, Nashville, Tenn.; 6/66 (Renewal); $2,549. (NIMH)

This International Conference scheduled in April 1968 at George Peabody College consists of papers and discussions of advances in identifying social-cultural factors of mental retardation, qualities of early experience and intellectual development, un-or poorly-explored areas within the topic, and conceptual systems to encompass existing data.

1041. THE GROWTH OF COGNITIVE ABILITIES IN YOUNG CHILDREN (MH-8498-03); Blank, Marion S., Yeshiva University College of Medicine, New York, N.Y.; 1/67 (Renewal); $3,543. (NIMH)

This research proposes to investigate the role of concepts in problem solving in nursery school age children.

1042. ALTERING BILIRUBIN METABOLISM AND KERNICTERUS BY DRUGS (4925-04); Spratt, James L., State University of Iowa, Iowa City, Iowa; 9/66-8/67 (Renewal); $22,556. (NINDB).

This research concerns attempts to cause stimulation of bilirubin conjugation by glucoronyl transferase. The studies will be performed with newborn animals and both <u>in vivo</u> and <u>in vitro</u> techniques will be utilized.

1043. BRAIN DAMAGE AND HYPEROXYGENATION IN MENTAL DEFICIT (7258-01); Schwartz, Arthur S., Barrow Neurological Institute, Phoenix, Arizona; 6/67-5/69 (Initial); $25,187. (NINDB)

This research proposes to establish the parameters involved in the production of brain damage by exposure of newborn rats to hight concentrations of 0_2 during the first few days of life.

1044. BRAIN LIPIDS OF THE FETUS AND YOUNG ANIMALS (3523-06); Witting, Lloyd A., Elgin State Hospital, Elgin, Ill., 9/66-8/67 (Renewal); $12,745. (NINDB)

This research proposes to study alterations in the ganglioside pattern of the chick brain throughout the various stages of maturation. It will be determined if various experimental stresses such as encephalomalacia or a lactose-containing diet alter the ganglioside patterns.

1045. BRAIN METABOLISM AND SYSTEMIC DISEASES (1365-10); Bessman, Samuel P., University of Maryland, Baltimore, Md.; 9/66-8/67 (Renewal); $46,102 (NINDB)

This research proposes to investigate certain diseases accompanied by central nervous system signs and symptoms, including mental retardation, liver disease, renal disease, and acute infections.

1046. BRAIN PROTEIN SYNTHESIS IN RELATION TO MENTAL RETARDATION (7120-01); Rendina, George, Central Wisconsin Colony and Training School, Madison, Wisconsin; 3/67-2/68 (Initial); $62,167. (NINDB)

This research concerns the generalization that all types of retardation result from some malfunction of the DNA-RNA material in the cell and this is a guide for investigative activity.

1047. COLLABORATIVE PROJECT ON CEREBRAL PALSY (2371-09S2); Cooke, Robert E., Johns Hopkins University, Baltimore, Maryland; 1/67-6/67 (Renewal); $192,998. (NINDB)

This research is part of the Collaborative Project concerning the etiology of cerebral palsy and related neurologic abnormalities in infants and children. It is a co-operative endeavor between 13 medical centers and the Perinatal Research Branch of the National Institute of Neurologic Diseases and Blindness.

1048. COLLABORATIVE STUDY OF CEREBRAL PALSY (2358-09S2); Anderson, John A., University of Minnesota, Minneapolis, Minn.; 1/67-6/67 (Renewal); $161,031. (NINDB)

This research is a prospective study to collect and analyze data from the first visit of the pregnant women up to the school performance of their children. The data include the findings of medical examinations, laboratory studies, and socio-economic and genetic information.

1049. COMPARATIVE BIOCHEMISTRY OF MUCOLIPIDS (3085-06); Garrigan, Owen W., Seton Hall University, South Orange, New Jersey; 1/66-8/67 (Renewal); $8,870. (NINDB)

This research proposes to illucidate the structure, function and biosynthetic pathways of complex, water-soluble, sialic

acid-containing lipids, called mucolipids or gangliosides, with a view to understanding their role in normal human nerve processes and their involvement in certain lipidoses.

1050. CYSTATHIONINE METABOLISM IN BRAIN (4454-04); Brown, Fountaine Christina, University of Tennessee, Memphis, Tenn.; 9/66-8/67 (Renewal); $22,999. (NINDB)

This research proposes to delve into the metabolism of sulfur containing compounds by brain tissue. The study will encompass enzymes and co-factors pertinent to metabolic synthesis and degradation of sulfur compounds, with particular emphasis on cystathionine, its precursors, and derivatives.

1051. DEVELOPMENTAL NERVOUS DISORDERS: KRABBE'S DISEASE (6756-01); Fletcher, T.F., University of Minnesota, Minneapolis, Minn.; 2/67-1/68 (Initial); $15,799. (NINDB)

This research concerns the study of Krabbe type leukodystrophy in the dog, including the genetic basis of transmission, the functional statis of the patient at different stages in the pathogenesis of the disease, and the effect of drugs on the course of the disease.

1052. DIRECT AND INDIRECT CALORIMETRY IN NEWBORNS (4831-03); Anderson, John A., University of Minnesota, Minneapolis, Minn.; 9/65-8/67 (Renewal); $27,283. (NINDB)

This research proposes to investigate the energy metabolism of human newborns by simultaneous direct and indirect calorimetry. The ratio of oxygen consumption to heat production will be determined for normal infants during the first week of life and will be compared with those obtained on neonates who have respiratory distress, hyperbilirubinemia, prematurity or are under the effect of drugs.

1053. EFFECT OF DIET ON LIPIDS AND AMINO ACIDS OF BRAIN (5262-03S1); Mertz, Edwin T., Purdue University, Lafayette, Indiana; 11/66-11/67 (Renewal); $2,598. (NINDB)

This research proposes to find the ways the brain of the immature rat is altered with respect to levels of lipids, total protein and free amino acids by limited food intake, by low or imbalanced protein diets and by diets supplemented with very high levels of phenylalanine.

1054. EFFECTS OF ANOXIA ON BRAIN METABOLISM IN THE NEWBORN (6163-02); Thurston, Jean H., Washington University Medical School, St. Louis, Missouri; 10/66-9/67 (Renewal); $27,800. (NINDB)

This research proposes to study biochemical effects of anoxia on the brain of the newborn fetus. Substrates of known importance in brain metabolism will be measured at zero time and after varying degrees of anoxia, with the aim of correlating the findings with functioning of the brain as might relate to subsequent development.

1055. ENERGY SUPPLY DISORDERS AFFECTING THE FETAL-INFANTILE CNS (2275-08); Pentschew, Angel, Maryland Medical-Legal Foundation, Baltimore, Maryland; 9/66-8/67 (Renewal); $53,418. (NINDB)

This research proposes further exploration of recent experimental findings suggesting that chronic metabolic hypoxidosis abolishes the inherent specific "skill" of the cerebral capillaries to function as blood-tissue barrier and reduces their functional ability to that of common capillaries.

1056. ENZYMATIC FORMATION OF BILE PIGMENTS (5367-03); Levin, Ephraim Y., Johns Hopkins University School of Medicine, Baltimore, Maryland; 9/66-8/67 (Renewal); $14,768. (NINDB)

This research concerns the mechanism of heme ring cleavage in the presence of various reducing agents such as ascorbic acid; the nature of verdohemochrome, the intermediate reaction product; and the relationship of this moded reaction to heme ring cleavage in the presence of liver extracts.

1057. ENZYME ACTIVITY IN BRAINS OF INFANT RATS (7360-01); Lambooy, John P., University of Nebraska College of Medicine, Omaha, Nebraska; 5/67-4/69 (Initial); $17,099. (NINDB)

This research proposes to study the relationship between the half-life of the mitochondria of the brain and the flavin content of the mitochondria. The flavin content will be expressed as the succinic dehydrogenase activity of the brains of infant rats whose biochemically functional flavin will depend on the composition of the flavin component of their diet.

1058. EXPERIMENTAL MODEL OF PHENYLKETONURIA-LIKE CONDITIONS (6905-01); Liss, Leopold, The Ohio State University Research Foundation, Columbus, Ohio; 2/67-1/68 (Initial); $30,795. (NINDB)

This research proposes to investigate the mechanisms which cause mental retardation in accumulation diseases.

1059. FACTORS INFLUENCING NEURAL TUBE DIFFERENTIATION (6367-02); Lyser, Katherine M., Hunter College of the City University of New York, New York, N.Y.; 12/66-11/67 (Renewal); $18,223. (NINDB)

This research focuses upon factors controlling development in the chick embryo spinal cord, beginning at the time of initial differentiation of neuroblast cells and nerve processes being studied in organ culture.

1060. FUNCTIONAL ANALYSIS OF THE HUMAN SKULL (965-12); Moss, Melvin L., Columbia University, New York, N.Y.; 4/67-3/68 (Renewal); $10,146 (NINDB)

This research proposes to continue study of the form and structure of the human skull by the previously established methods of functional cranial analysis; the isolation of functional cranial components, the identification of their respective skeletal units and related functional matrices.

1061. GLUCOS AND AMINO ACID OXIDATION IN IMMATURE BRAIN (5015-03); Swaiman, Kenneth P., University of Minnesota, Minneapolis, Minn.; 12/65-11/66 (Renewal); $14,488. (NINDB)

This research concerns the study of the interrelationships of glucose carbon chain oxidation in the presence of large quantities

of certain amino acids in developing rabbit brain and the study of the ability of developing rabbit brain to utilize the carbon skeletons of amino acids for carbon dioxide formation.

1062. HUMAN CHROMOSOMAL ABNORMALITIES IN MENTAL DEFICIENCY (4662-03); Atkins, Leonard, Massachusetts General Hospital, Boston, Mass.; 9/65-12/66 (Renewal); $40,002. (NINDB)

This research concerns investigation of patients with diseases of the nervous system, particularly mental deficiency, for chromosomal abnormalities. Phenotypic changes in patients are related to specific morphological changes of chromosomes.

1063. IMMUNOCHEMICAL STUDIES OF NEURAL DIFFERENTIATION (7141-01); Friedman, Harvey P., University of Kansas, Lawrence, Kansas; 9/66-8/67 (Initial); $15,301. (NINDB)

This research proposes to continue work on the chemical fractionation of chicken brain antigens and the isolation of antibodies thereto, so that the antigen involved in the process of differentiation may be distinguished from those which are present before the cell assumes its definitive nature.

1064. INHIBITION ASSAY -- DETECTION AND STUDY OF INBORN ERRORS (1)(5290-03S1); (2)(5290-04); Guthrie, Robert, Research Foundation of State University of New York, Albany, N.Y.; (1) 4/66-3/69; (2) 4/67-3/68 (Renewal); (1) $5,381; (2) $47,858; (NINDB)

This research concerns "multiple" microbiological tests and a "multiple inhibition assay" for detection of inborn errors in the newborn infant. A possible new inborn error associated with severe mental retardation and related to histidinemia has been discovered.

1065. LP AND ASSOCIATED MUTATIONS (684-13); Stein, Kathryn F., Mount Holyoke College, South Hadley, Massachusetts; 10/66-9/67 (Renewal); $12,360. (NINDB)

This research concerns the mutation Lp in the mouse, which in homozygous embryos prevents closure of the neural folds, and several associated mutations.

1066. MALFORMATIONS OF THE NERVOUS SYSTEM (6188-02); Langman, Jan, University of Virginia, Charlottesville, Virginia; 9/66-8/67 (Renewal); $27,759 (NINDB)

This research proposes to determine whether vitamin A in vitro inhibits cell division, what is the precise localisation of vitamin A in the cell, and whether vitamin A influences the normal differentiation of the neuroblasts or whether it interferes with cell proliferation. Also to be examined is whether labeled cells penetrate into the central nervous system of the unlabeled embryo and whether neuroblasts are characterized by a specific protein.

1067. METABOLIC DISEASES OF THE BRAIN (1)(6938-01); (2)(6938-01S1); Menkes, John H., University of California, Los Angeles, Calif.; (1) 7/66-3/67; (2) 7/66-3/67 (Initial); (1) $37,358; (2) $15,075. (NINDB)

This research proposes to investigate the interrelation between the metabolic defect in various inborn errors of metabolism

and the development of neurologic abnormalities.

1068. METABOLISM OF GAMMA-HYDROXYBUTYRIC ACID (5062-03); Bessman, Samuel P., Friends of Psychiatric Research, Inc., Baltimore, Maryland; 9/66-8/67 (Renewal); $26,152. (NINDB)

This research concerns the metabolism of gamma-hydroxybutyrate and its lactone in animals and in humans. An enzyme which hydrolyzes the lactone has been isolated and purified to some extent and its properties are under investigation. This enzyme has been shown to reversibly catalyze the conversion of gamma-hydroxybutyrate to its lactone.

1069. MUCOPOLYSACCHARIDES IN NEUROLOGICAL DISORDERS (5947-03); Renuart, Adhemer W., Murdoch Center, Butner, North Carolina; 5/67-4/68 (Renewal); $19,959. (NINDB)

This research proposes to elucidate the enzyme system for the degradation of acid mucopolysaccharides. As shown by others, hyaluronidase is associated mainly with the lysosomal fraction of cells. The search is continuing for a system in animal tissues for degrading sulfated mucopolysaccharides.

1070. NATURAL HISTORY OF RETROLENTAL FIBROPLASIA (1)(6069-01); (2)(6069-01S1); Cooper, William C., Columbia University College of Physicians and Surgeons, New York, N.Y.; (1) 9/65-4/67; (2) 9/66-4/67; (Initial); (1) $11,521; (2) $6,380. (NINDB)

This research aims to study and follow up approximately 900 patients with retrolental fibroplasia seen periodically in the past 20 years at the Eye Clinic of the Institute of Ophthalmology of the Presbyterian Hospital in New York City. To learn the natural history of retrolental fibroplasia and to gain information regarding the ocular defects and other manifestations of this disease is anticipated.

1071. NEUROLOGICAL DISEASES OF CHROMOSOMAL ETIOLOGY (4186-04); Miller, James Q., University of Virginia School of Medicine, Charlottesville, Virginia; 9/65-4/30/67 (Renewal); $14,093. (NINDB)

This research involves the use of leukocyte cultures to search for chromosome defects in patients with neurological disorders and the evaluation of clinical, biochemical and morphologic status of persons with chromosome defects.

1072. NEW AMINO ACID DISORDERS IN CEREBRAL DISEASE (5096-04); Efron, Mary L.S., Massachusetts General Hospital, Boston, Mass.; 1/67-12/67 (Renewal); $53,185. (NINDB)

This research involves the investigation of enzyme biochemical defects in several previously undescribed inborn errors of amino acid metabolism associated with ammonia intoxication, mental retardation, and other evidence of cerebral disease.

1073. ONTOGENESIS OF ACTIVITY IN CEREBRAL NEURONS (7105-01); Huttenlocher, Peter R., Yale University School of Medicine, New Haven, Conn., 8/66-6/67 (Initial); $8,685 (NINDB)

This research concerns the development of neoronal activity in immature mammalian cerebral cortex. It is hoped to eventually correlate development of neuronal functioning with anatomical development of cortex, and with biochemical changes observed during maturation of the brain.

1074. PERINATAL FACTORS IN THE ORIGIN OF CEREBRAL PALSIES (2400-08S1); Janeway, Charles A., The Children's Hospital Medical Center, Boston, Mass.; 1/67-6/67 (Renewal); $234,806. (NINDB)

This research concerns a collaborative study seeking the possible causes of cerebral palsy, mental retardation and other neurologic disorders.

1075. PERINATAL FACTORS IN THE ORIGIN OF CEREBRAL PALSY; (2372-09S1); Clifford, Stewart H., Boston Lying-in Hospital, Boston, Mass.; 1/67-6/67 (Renewal); $114,732. (NINDB)

This research concerns a collaborative study seeking the possible causes of cerebral palsy, mental retardation and other neurologic disorders.

1076. PHENYLALANINE ANTIMETABOLITE EFFECT ON NERVOUS SYSTEM (6903-01); Watt, Dean D., Midwest Research Institute, Kansas City, Mo.; 2/67-1/68 (Initial); $23,423. (NINDB)

This research represents a study of the effects of antimetabolites of phenylalanine upon the nervous system, with emphasis upon the developing nervous system. The compounds to be studied are DL-4-fluorophenylalanine, DL-4-chlorophenylalanine, DL-4-methylphenylalanine and 3-(4-pyridyl)-alanine (tolyl-alanine).

1077. PHOSPHOETHANOLAMINE METABOLISM IN DEVELOPING BRAIN (6113-02); Cohen, Maynard M., Presbyterian-St. Luke's Hospital, Chicago, Ill.; 9/66-8/67 (Renewal); $11,400. (NINDB)

This research concerns studies to determine if phosphoethanolamine enters metabolism as a unit or is first hydrolyzed to ethanolamine to serve as a precursor. Information on this will be obtained by utilizing C^{14} choline with subsequent isolation of lecithin and sphingomyelin.

1078. PHYLOGENY AND ONTOGENY OF THE CEREBRAL CORTEX (3473-06); Noback, Charles R., Columbia University, New York, N.Y.; 9/66-8/67 (Renewal); $19,355 (NINDB)

This research concerns the study of neurons of the cerebral cortex (stained by the Golgi technique) in a series of mammals including Tupaia and opossum. From these observations the phylogeny of these cells will be constructed. The comparative morphology of the corticoreticular and corticospinal fibers and visual pathways to the cortex are being studied in Tupaia glis and some lower primates.

1079. PRE-NATAL AND POST-NATAL MONOAMINES IN BRAIN AND HEART (7124-01); Licata, Richard H., Desert Research Institute, University of Nevada, Reno, Nevada; 2/67-1/68 (Initial); $26,491. (NINDB)

This research concerns causal mechanisms as a basis for specific and non-specific defects of the central nervous system. This study is oriented toward a total body approach with a view to relating specific and associated anomalies as a syndromic condition.

1080. PRODUCTION OF ABNORMAL MOVEMENTS OF NEUROLOGIC ORIGIN (6282-01); Mettler, Fred A., Columbia University College of Physicians and Surgeons, New York, N.Y.; 6/66-5/67 (Initial); $27,450. (NINDB)

This research concerns the elucidation of the mechanisms,

damage of which results in abnormal movements such as tremors or choreoathetosis and with changes in motor innervation leading to restrictions of joint action.

1081. RADIATION AND MORPHOLOGIC AND BEHAVIORAL DEVELOPMENT (3861-05); Hicks, Samuel P., University of Michigan Medical Center, Ann Arbor, Michigan; 9/66-8/67 (Renewal); $47,959. (NINDB)

This research concerns the effects of radiation, various environmental factors, and mutant genes on the development of structure and function of the nervous system. Alterations in structure are studied from the histomorphogenetic viewpoint, sometimes using tritiated thymidine autoradiographic monitoring, and the effects of different deleterious factors are compared.

1082. RADIOCOPPER AND RADIOIRON STUDIES IN WILSON'S DISEASE (7102-01); O'Really, Sean, University of California San Francisco Medical Center, San Francisco, California; 1/67-12/67 (Initial); $31,024. (NINDB)

This research proposes to investigate copper and iron metabolism, using radioactive tracers, in homozygotes and heterozygotes of Wilson's disease.

1083. REFINING OF URINE SCREENING TEST FOR CHONDROITINS (4827-03); Carter, Charles H., Sunland Hospital at Orlando, Orlando, Florida; 4/66-3/67 (Renewal); $11,500. (NINDB)

This research is a continuation of tests on urine specimens from patients in this Institute for mucopolysaccharides content. The validity of the toluidine blue staining spot test for urinary mucopolysaccharides will be evaluated by comparing with results obtained by other chemical tests.

1084. STUDIES IN GENETICALLY-DETERMINED NEUROLOGICAL DISEASES (3255-07); Austin, James H., University of Oregon Medical School, Portland, Oregon; 12/66-11/67 (Renewal); $58,920. (NINDB)

This research proposes to clarify the cause of several genetically-determined diseases of myelin, particularly metachromatic leukodystrophy and globoid (Krabbe) leukodystrophy. The studies are biochemical, histological, clinical, and genetic in scope.

1085. STUDIES IN TAY-SACHS DISEASE (5124-04); Balint, John A., Albany Medical College, Albany, New York; 1/67-12/67 (Renewal); $11,156. (NINDB)

This research concerns hemoglobin free red cell ghosts prepared from normal subjects, heterozygous carriers of the Tay-Sachs trait and patients with Tay-Sachs disease. The ghosts will be analyzed for hexosamine content amino-acid composition and total nitrogen and will be subjected to fractionation procedures to isolate the "structural" proteins, and a glycoprotein fraction.

1086. STUDIES ON THE PATHOGENESIS OF CEREBRAL PALSY (2390-09S1); Gates, Marguerite J., Columbia University College of Physicians and Surgeons, New York, N.Y.; 1/67-6/67 (Renewal); $123,557. (NINDB)

This research concerns the participation of the College of

Physicians and Surgeons of Columbia University with a number of other medical institutions throughout the nation in a long-term, prospective study seeking the etiology of cerebral palsy and related mental, neurological, and sensory disorders of children.

1087. STUDY OF BRAIN GANGLIOSIDE STRUCTURES (4834-04); Ledeen, Robert W., Albert Einstein College of Medicine of Yeshiva University, Bronx, New York; 9/66-8/67 (Renewal); $37,938. (NINDB)
This research proposes to study brain lipid chemistry. This study concerns the inter-relationship of structure and function.

1088. STUDY OF COPPER PROTEINS IN NORMAL AND DISEASED BRAIN (1733-09); Porter, Huntington, New England Center Hospital, Boston, Mass., 9/66-8/67 (Renewal); $21,048. (NINDB)
This research aims to obtain information on the copper proteins present in normal brain and in immature and adult liver and their biological functions, and the types of organic combination in which copper is present in pathological brain and liver.

1089. STUDY OF DIFFUSE DEGERATIVE CNS DISEASE (4607-04); Zeman, Wolfgang, Indiana University Medical Center, Indianapolis, Indiana; 9/66-8/67 (Renewal); $24,103. (NINDB)
This research concerns brain biopsies taken from carefully selected and exhaustively examined patients suffering from chronic degerative diseases. These biopsied are obtained following rigidly controlled precautions and are treated for electron microscopic study, slide histochemistry, and microchemistry.

1090. STUDY OF HYPERBILIRUBINEMIA IN THE NEWBORN (264-15); Diamond, Louis K., Children's Hospital Medical Center, Boston, Mass.; 7/66-6/67 (Renewal); $30,480. (NINDB)
This research focuses upon antibodies and hematologic disease and attempts to characterize the type of antibodies found in children with auto-immune hemolytic anemia. The possible relationship of antecedent viral infection to the development of such antibodies has been studied in several patients.

1091. THE MORPHOGENESIS OF EXPERIMENTAL MYELODYSPLASIA (6960-01); Gordon, Lawrence H., University of Hawaii, Honolulu, Hawaii; 5/66-6/67 (Initial); $9,154. (NINDB)
This research proposes to study the morphogenesis and pathogenesis of the developing neural tube in the normal rat embryo, and embryos with trypan blue induced myelodysplasia.

1092. THE ROLE OF THE THYROID GLAND IN BRAIN METABOLISM (6895-01); Archibald, Reginald M., The Rockefeller University, New York, N.Y.; 9/66-8/67 (Initial); $28,616. (NINDB)
This research concerns the role of the thyroid gland in brain function from 5 approaches: the influence of the thyroid on brain tissue oxidative metabolism; oxidative phosphorylation; biosynthesis of acetylcholine and the activity of cholinesterase in brain tissue; role of electrolytes; and the effect of the thyroid on amino acid incorporation into brain protein.

1093. THREE PROBLEMS IN EXPERIMENTAL PATHOLOGY (3670-07); Vogel, P. Stephen, Duke University, Durham, North Carolina; 6/67-5/68 (Renewal); $42,426. (NINDB)

This research concerns the count of mitochondria of Agaricus campestris established in extracellular cultures using polystyrene beads as the marker and EM for visualization. Diphasic growth was observed wherein a several-fold increment occurred during the first 2 days, followed by a decrease and then by a further increment during days 4 and 5. Although nucleic acid synthesis was demonstrable during the early phase, protein synthesis was largely confined to the latter.

1094. VIRAL HEMORRHAGIC ENCEPHALITIS OF RATS (7019-01); Nathanson, Neal, Johns Hopkins University School of Hygiene and Public Health, Baltimore, Maryland; 2/67-1/68 (Initial); $33,205. (NINDB)

This research proposes to characterize the physical, chemical, antigenic, and biological properties of the HER Agent, and to study the pathogenesis of hemorrhagic encephalitis produced by the HER agent, exploiting the unique opportunity presented by what may be the first isolation of a mammalian virus which regularly produced hemorrhagic encephalitis.

1095. VIRUS-CELL INTERACTION REPLICATION AND DIFFERENTIATION (5545-03); Margolis, George, Dartmouth College, Hanover, New Hampshire; 9/66-8/67 (Renewal); $47,063. (NINDB)

This research concerns a group pf PICODNA viruses which exhibit a propensity for cells with active DNA synthesis attending mitosis. These viruses exert a remarkably selective action on the developing nervous system, attacking particularly the actively proliferating external germinal layer of the cerebellum, and resulting in an intractable ataxia because of a "hypoplasia" of the granular layer.

Epidemiology

1096. EPIDEMIOLOGY OF MENTAL RETARDATION IN A RURAL COUNTY (H-34); Imre, Paul D., Johns Hopkins University, Baltimore, Maryland; 12/66-11/67 (Renewal); $119,123. (SRS).

This research proposes to uncover every case of mental retardation in an enumerated and clinically screened population of a political subdivision in Maryland. Households with a retarded person will be extensively investigated on social, economic, medical, educational and vocational variables and will be compared with control households.

1097. EPIDEMIOLOGY OF DOWN'S SYNDROME (RO1 01638-02); Day, Robert W., California State Department of Public Health, Berkeley, Calif.; 11/66-6/67; (Renewal); $3,866. (NICHD)

This research proposes to determine the distribution in time and location of births of infants with Down's Syndrome born in California from 1950 through 1965; and after accounting for maternal age effects, effects of ascertainment and other pertinent factors, to investigate the occurrence of non-random effects.

1098. KINDRED PATTERNS - MENTALLY RETARDED AND CONTROL (RO1 00045-02S1); Lederberg, Joshua, Stanford University, Stanford, California; 9/66-5/67 (Renewal); $45,743. (NICHD)

This research proposes to acquire census data and tabulate the statistical analysis of reproductive patterns in relation to socioeconomic variables. Similar data will be obtained on kindreds of mentally retarded patients in State institutions. Relationships to fertility, maternal age effects on infant performance, seasonal variations in birth incidence, and the extent of endogamous stratification in the samples of the U.S. population are expected to be learned.

1099. MAMMALIAN CHROMOSOMES AS GENETIC MARKERS IN VITRO (RO1 00622-04); Puck, Theodore T., University of Colorado, Denver, Colo.; 10/66-9/67 (Renewal); $82,420. (NICHD)

This research proposes to study the frequency of occurrence of chromosomal abnormalities in human and mammalian cells in vitro and in vivo; to determine causative agents and their mode of action, and to establish chromosomal and biochemical markers which will permit analysis of these actions.

1100. NORTH CAROLINA TRI-COUNTY PSYCHIATRIC CASE REGISTER (MH-1297-03); Vernon, Charles R., North Carolina State Department of Mental Health, Raleigh, North Carolina; 11/66 (Renewal); $4,735. (NIMH)

This research proposes to develop a system of data collection, processing, and storage on all cases seen in psychiatric facilities in a circumscribed geographic area (Orange, Durham, and Wake Counties); and a system of data analysis and interpretation, with appropriate techniques of information dissemination.

1101. SOCIOBEHAVIORAL STUDY CENTER FOR MENTAL RETARDATION (MH-8667-03); Dingman, Harvey F, Pacific State Hospital, Pomona, California; 10/66 (Renewal); $454,625. (NIMH)

This research proposes to study the prognosis of the mentally retarded individual in his development as related to institutional life, his interaction with his family and with greater social structures in the community.

Pathophysiology

1102. ABNORMAL AMINO ACID METABOLISM IN MENTAL RETARDATION (RO1 01326-03); Greer, Melvin, University of Florida, Gainesville, Fla.; 1/67-12/69 (Renewal); $12,433. (NICHD)

This research concerns the detection, with the aid of gas-liquid chromatography, of certain disorders of metabolic origin causing cerebral dysfunction and mental retardation; the clinical course may be observed by measurement of certain biochemical parameters.

1103. A CENTER FOR RESEARCH IN HUMAN LEARNING (PO1 01136-03); Darley, John G., University of Minnesota, Minneapolis, Minn.; 9/66-8/67 (Renewal); $136,013. (NICHD)

This research concerns a program in 6 areas of human learning: acquisition and utilization of language; developmental changes

in learning processes; disturbances in learning processes; teaching methods and curriculum development; analysis of content learning through programmed instruction; and integrative aspects of learning research.

1104. ADDED STRESS AND METABOLIC RESPONSE OF THE PREMATURE (RO1 00387-08); Beard, Alice G., University of Arkansas, Little Rock, Ark.; 9/66-8/67 (Renewal); $22,188. (NICHD)
This research proposes to study the effects of beginning feedings at 6 hours of age and after 72 hours in 156 premature and 60 term infants.

1105. AMINO ACID FLUX IN DEVELOPING BRAIN (RO1 01889-02); Swaiman, Kenneth F., University of Minnesota, Minneapolis, Minn.; 2/67-1/69 (Renewal); $29,512. (NICHD)
This research proposes to study flux of amino acids into protein of developing brain in an attempt to delineate crucial times of synthesis during development and then to study the effect of concentration changes of specific amino acids on synthesis.

1106. AMINO ACID INTERRELATIONS IN HUMAN METABOLIC DISEASE (RO1 02609-05); Nyhan, William L., University of Miami, Coral Gables, Fla.; 6/67-5/71 (Renewal); $40,447. (NICHD)
This research proposes to investigate the interrelationships of amino acids in metabolic diseases. A new disorder of amino acid metabolism is under study in which leukopenia, mental retardation and recurrent episodes of ketosis have been associated with elevated levels of glycine in the blood, urine and cerebrospinal fluid.

1107. AMNIOTIC FLUID CONSTITUENTS IN FETAL ERYTHROBLASTOSIS (RO1 02239-02); Cherry, Sheldon H., Mt. Sinai Hospital, New York, N.Y.; 6/67-5/70 (Renewal); $34,725 (NICHD)
This research proposes to investigate the qualitative and quantitative differences between the constituents of amniotic fluid in normal pregnancies and those complicating the presence of fetal erythroblastosis and thereby improve our understanding of the pathogenesis and ante-natal management of this disease.

1108. AROMATIC AMINO ACID METABOLISM IN RETARDED CHILDREN (RO1 00329-10); O'Brien, Donough, University of Colorado, Denver, Colo.; 6/67-5/68 (Renewal); $33,321. (NICHD)
This research involves inborn errors of amino acid and lipid metabolism. An extensive screening program is underway for metabolic defects in retarded children in the region. Aside from a number of recognizable syndromes investigations are proceeding with three so far undescribed conditions: iminopeptiduria; renal tubular iminoaciduria with glycinuria; and an undefined peptiduria.

1109. AUTONOMIC ACTIVITY IN MENTALLY DEFECTIVES AND NORMALS (RO1 02744-01); Clausen, Johs, New York State Department of Mental Hygiene, Staten Island, New York; 5/67-7/70 (Initial); $37,687. (NICHD)
This research proposes to determine the reliability of autonomic functions in deficients, to obtain further data on which functions do and which do not differentiate deficients from normals and to determine differences of autonomic functions in

phenylketonurics, subjects with Down's syndrome, organics, and non-organic deficients.

1110. AUTONOMIC DYSFUNCTION IN PHENYLKETONURIA (1)(RO1 01437-01A1S1; (2)(RO1 01437-02); Steisel, Ira M., St. Christopher's Hospital for Children, Philadelphia, Pa.; (1) 9/66-2/67; (2) 3/67-2/68; (Renewal); (1)$13,122; (2)$22,253. (NICHD)

This research proposes to determine whether the biochemical disturbances in phenylketonuria produce predictable manifestations of impairment of autonomic, neurohumoral mechanisms (e.g., defective adrenergic and cholinergic outflow) in children diagnosed as having this condition.

1111. BASIC CORRELATES OF NEONATAL SUCKING BEHAVIOR (RO1 02458-01); Kaye, Herbert, Emory University, Atlanta, Georgia; 1/67-12/69 (Initial); $47,753. (NICHD)

This research proposes to examine simple behavioral and psychophysiological patterns in infants from "normal" and "suspect" populations and to relate specific differences in patterns to pre-and perinatal factors, to conduct studies to refine basic learning and sensory assessment techniques now using the sucking response, and to relate this work to the general laws of behavior.

1112. BEHAVIOR FOLLOWING REARING IN A RANDOM ENVIRONMENT (RO1 02325-01); Miles, Raymond C., University of Colorado, Boulder, Colo.; 10/66-9/69 (Initial); $28,699. (NICHD)

This research proposes to systematically assess behavioral effects of rearing in an environment where practically all external stimulus changes occur in an unpredictable manner.

1113. BEHAVIOR IN THE PROGENY OF UNDERFED MOTHERS (RO1 02984-01); Chow, Bacon F., Johns Hopkins University, Baltimore, Maryland; 6/67-5/72; (Initial); $28,329. (NICHD)

This research concerns male progeny of mother rats restricted to 50% of their normal food intake during pregnancy and lactation; their performance in comparison with normal progency will be evaluated by activity in a wheel cage, running patterns in a field box, conditioned emotional responses, maze running and avoidance-escape responses.

1114. BIOCHEMICAL AND ANIMAL STUDIES IN MENTAL RETARDATION (RO1 00341-07) Waisman, Harry Aaron, University of Wisconsin, Madison, Wisc.; 6/67-5/70 (Renewal); $142,651. (NICHD)

This research concerns "mapping" of <u>in vivo</u> brain protein synthesis by DEAE cellulose chromatography of one sytoplasmic and two particulate fractions for 3-day-old and 10-day-old rats. Data from this study will provide a baseline with which to compare protein synthesis in brain prepared from hormone treated rats.

1115. BIOCHEMICAL AND MOLECULAR BASIS OF MENTAL DISEASE (1)(RO1 01594-02S1); (2)(RO1 01594-03A1); Shaw, Kenneth N.F., Children's Hospital of Los Angeles, Los Angeles, California; (1) 9/66-8/67; (2) 6/67-4/70 (Renewal); (1) $24,000; (2) $90,610. (NICHD)

This research proposes to continue screening of urines from mentally retarded patients for metabolic abnormalities with

the use of chemical tests and paper chromatography. Patients found to be abnormal will be investigated in more detail when evaluation indicates that useful biochemical, clinical or therapeutic information may be obtained.

1116. BIOCHEMICAL CAUSES OF MENTAL RETARDATION (RO1 02152-02); Ghadimi, Hossein, State University of New York, New York City, N.Y.; 4/67-3/69 (Renewal); $78,526. (NICHD)

No abstract supplied.

1117. BIOCHEMICAL CORRELATES OF CHROMOSOMAL ANOMALIES (RO1 02044-01); Paine, Richmond S., Children's Hospital of D.C., Washington, D.C.; 8/66-7/69 (Initial); $42,688. (NICHD)

This research aims to detect correlations between biochemical and chromosomal abnormalities in patients and in clinically normal carriers, and to compare these with physical findings, dermatoglyphics, intelligence and other clinical data. This is an extension of studies of trisomic and translocation mongols under a contract with the Division of Chronic Diseases, and its extension to chromosomal abberations other than mongolism.

1118. BIOCHEMICAL DEFECTS IN MENTALLY RETARDED CHILDREN (Ro1 00353-06); Hall, W. Knowlton, Medical College of Georgia, Augusta, Ga.; 1/67-12/67; (Renewal); $97,795. (NICHD)

This research proposes to study specific metabolic defects found in retarded children. After characterization of the abnormality the findings will be correlated with evaluations of specific mental functions. The inheritance of the metabolic aberrations will be investigated both through study of the family involved and through chromosome studies.

1119. BIOCHEMICAL DEFECTS RELATED TO CONGENITAL ANOMALIES (RO1 00560-06); Schafer, Irwin A., Stanford University, Stanford, California; 1/67-8/67 (Renewal); $24,012. (NICHD)

This research proposes to gain an understanding of the molecular mechanisms of action of teratogenic agents, and relate this to the production of specific human malformations.

1120. BIOCHEMICAL DEVELOPMENT OF SURFACTANT OF LUNG (RO1 01299-02); Gluck, Louis, Yale University, New Haven, Connecticut; 10/66-9/70 (Renewal); $37,110. (NICHD)

This research concerns the quantitative changes and biosynthesis of phospholipids in lungs of developing mammalian fetuses and the relation of these phospholipids to the development of surface activity of lung. These studies include identification of surface active compounds, quantification during fetal development, enzymatic syntheses, structural characteristics and alterations with altered physiological states.

1121. BIOCHEMICAL DISTURBANCES IN DOWN'S SYNDROME (RO1 00800-04); Donnell, George N., Children's Hospital of Los Angeles, Los Angeles, Calif.; 6/67-5/69(Renewal); $31,694. (NICHD)

This research proposes to study the metabolism of galactose and glucose in tissues of individuals with Down's syndrome (mongolism). Leucocytes, erythrocytes, skin and intestinal mucosa will be used

for in vitro studies employing isotope tracer techniques.

1122. BIOCHEMICAL EFFECTS OF HUMAN CHROMOSOMAL ABERRATIONS (RO1 01733-02); Krone, Winfrid, Graduate Research Center of the Southwest, Dallas, Texas; 8/66-7/68 (Renewal); $23,100. (NICHD)

This research concerns the study of alterations of metabolism resulting from chromosomal abnormalities. Some information can be obtained from the analysis of excretions such as urine, saliva, perspiration, or by studying the composition and enzymatic activities of cellular and non-cellular components of the blood. Preference is given to the study of the biochemistry of cells cultured in vitro.

1123. BIOCHEMICAL INVESTIGATION OF MENTAL RETARDATION (RO1 02143-02); Berlow, Stanley, Michael Reese Hospital and Medical Center, Chicago, Illinois; 9/66-8/68 (Renewal); $12,604. (NICHD)

This research proposes to set up procedures for screening blood and urine of infants in the neonatal period in an effort to find inborn errors of metabolism. If early diagnosis is possible, an attempt will be made to modify the enzymatic defect by dietary or co-factor therapy and thus hopefully prevent mental retardation.

1124. BIOCHEMICAL SYSTEMS IN EXPERIMENTAL MENTAL DEFICIENCY (RO1 01058-03); Yuwiler, Arthur, University of California, Los Angeles, Calif.; 9/66-8/67 (Renewal); $28,434. (NICHD)

This research proposes to explore the mechanism of alteration in central amines accompanying amino acid loading, explore the relationship between central alterations and behavior, test the adequacy of the experimental model, extend the model to metabolic diseases, and explore the efficacy of chronic amine depletion in developing an alternate model.

1125. BIOLOGIC EFFECTS OF ABO HETEROSPECIFIC PREGNANCY (RO1 01461-11); Kaplan, Eugene, Sinai Hospital of Baltimore, Baltimore, Maryland; 4/67-3/70; (Renewal); $34,703. (NICHD)

This research concerns the significance of reduced red cell acetylcholinesterase (ACHE) activity in newborn infants of ABO heterospecific pregnancy under continued investigation by clinical, biochemical, and animal studies.

1126. BIOSYNTHESIS OF PULMONARY SURFACE ACTIVE LIPIDS (RO1 02354-01); Morgan, Thomas E., Jr., University of Washington, Seattle, Washington; 9/66-8/69 (Initial); $24,477. (NICHD)

This research proposes to isolate and characterize the enzyme, to study the parameters influencing its activity, to relate its activity to surfactant levels and to investigate the influence of gestational age, acidosis, hypoxia, temperature and related factors on its activity in vitro and in vivo.

1127. CARBOHYDRATE METABOLISM AND TERATOLOGY IN GUENEA PIGS (RO1 02050-07); Hoar, Richard M., University of Cincinnati, Cincinnati, Ohio; 5/67-4/68 (Renewal); $17,107. (NICHD)

This research concerns an attempt to correlate cord defects induced by hydrocortisone with glucose-6-phosphate dehydrogenase activity in the lumbar segments of the cord.

1128. CARBOHYDRATE METABOLISM IN NEONATE (1)(RO1 00235-06); (2)(RO1 00234-06S1); Cornblath, Marvin, University of Illinois, Chicago, Ill.; (1) 9/66-8/69; (2) 9/66-8/69 (Renewal); (1)$27,159; (2)$7,172. (NICHD)

This research concerns the role of growth hormone, insulin, free fatty acids and glycerol in the regulation of carbohydrate metabolism in the low birth weight (premature) and full-sized neonate. With a variety of carbohydrate tolerance tests, gluconeogenesis and glycogenolysis are being estimated in normal newborns and infants with symptomatic neonatal hypoglycemia.

1129. CATECHOLAMINE METABOLITE EXCRETION IN NEONATAL STRESS (RO1 01116-03); Young, Reuben B., Medial College of Virginia, Richmond, Va.; 5/67-4/68 (Renewal); $16,540. (NICHD)

This research proposes to ascertain the role of catecholamines in the primary and secondary pathophysiology in the RDS and to assess the newborn infants' ability to continue adequate catecholamine secretion in response to prolonged stress.

1130. CENTER FOR NORMAL AND ABERRANT ADAPTIVE DEVELOPMENT (PO1 00719-06); Birch, Herbert G., Yeshiva University, New York, N.Y.; 10/66-9/68 (Renewal); $269,829. (NICHD)

This research concerns the analysis of processes underlying normal and aberrant behavioral development. We have conducted experimental, observational and epidemiologic inquiries relating to factors affecting neurologic and behavioral development. Central to all the investigations has been the analysis of perceptual development and the relation of such development to the acquisition of learned skills and to the control of action.

1131. CENTRAL NERVOUS SYSTEM SEQUELAE OF PREMATURITY (RO1 02081-01A1); Goldman, Herbert I., Long Island Jewish Hospital, New Hyde Park, New York; 1/67-12/69 (Initial); $29,038. (NICHD)

This research proposes to determine whether there are any differences in the incidence and severity of central nervous system sequelae between the 2 and 4% protein diet groups and to study the relationship between clinical parameters obtained during the infants stay in the premature nursery and the later presence or absence of central nervous system sequelae.

1132. CEREBROVASCULAR RESPONSE TO EMBRYONIC OVERGROWTH (RO1 01679-02); Burda, Doris J., Stanford University, Stanford, Calif.; 2/67-1/69 (Renewal); $7,428. (NICHD)

This research concerns developmental interrelationships between the cerebrovascular system and the embryonic brain. A study will be made of changes in the intracranial arterial pattern in the brains of chick embryos.

1133. CHEMICAL STUDY OF CONGENITAL MENTAL DEFECTS (RO1 00198-09); Holt, L. Emmett, Jr., New York University, New York, N.Y.; 9/66-8/71 (Renewal); $54,328. (NICHD)

This research concerns dietotherapy and close observation of children presently under treatment for maple syrup urine disease. The formation of alloisoleucine after a load of isoleucine will be investigated as a possible means of differentiating the heterozygous carrier of the disease from the normal.

1134. CLASSICAL CONDITIONING OF EYEMOVEMENTS IN RETARDATES (RO1 01649-02); Zeaman, David, University of Connecticut, Storrs, Conn.; 9/66-8/68 (Renewal); $24,268. (NICHD)

This research concerns the relation of developmental variables (MA, CA, and IQ) and the classical conditioning of eyemovements in retardates. Extinction and spontaneous recovery measures appear to be invariant over a wide range of these developmental variables. Rate of acquisition was found to be positively related to developmental level provided that a joint index of MA and IQ was used.

1135. CONGENITAL MALFORMATIONS IN MAMMALS (RO1 00502-07); Warkany, Josef, Children's Hospital Research Foundation, Cincinnati, Ohio; 9/66-8/70 (Renewal); $65,018. (NICHD)

This research concerns the study of congenital malformations. Experimental teratology is practiced by the use of various teratogens in rats, mice and rabbits. Congenital malformations of children are investigated by clinical, anatomic, histologic and cytogenetic methods.

1136. CONTINGENT CORTICAL D.C. CHANGES IN RETARDED CHILDREN (1)(RO1 02172-01S1);(2)(RO1 02172-02); Steiner, William G., University of Tennessee, Knoxville, Tenn.; (1)7/66-8/69; (2)6/67-8/69 (Renewal); (1)$436; (2)$15,112. (NICHD)

This research proposes to obtain certain neurophysiological measurements relating to experimentally induced changes in the electrical negativity of the steady (d.c.) potentials of the cortex in a large group of mentally retarded and normal children in the hope of learning the nature of the physiological deficit, if any, in retarded children who do not seem to be suffering from any known pathological process of biological defect.

1137. COMMUNICATION DISORDERS OF THE MENTALLY RETARDED· (1)(PO1 00870-04; (2)(PO1 00870-04S1); Schiefelbusch, R.L., University of Kansas, Lawrence, Kansas; (1)10/66-9/70; (2)10/66-9/70 (Renewal); (1)$325,772; (2)$104,983. (NICHD)

This research proposes to establish a research setting in a deprived neighborhood and to formulate and initiate a program of research concerned with factors of inadequate development.

1138. DELAY OF REINFORCEMENT AND CHILDREN'S BEHAVIOR (RO1 02689-01); Rabinowitz, F. Michael, University of Washington, Seattle, Wash.; 1/67-12/68 (Initial); $20,939. (NICHD)

This research concerns a comprehensive understanding of children's behavior in relation to delay of reinforcement; 18 systematic and inter-related experiments are suggested. Although some current theoretical issues are discussed, the emphasis is empirical. Many inconsistencies in the child delay of reinforcement literature can only be resolved through concentrated experimental effort.

1139. DEVELOPMENTAL DIAGNOSTIC STUDIES IN MENTAL DEFICIENCY (PO1 01095-03); Wortis, Joseph, Jewish Hospital of Brooklyn, New York, N.Y.; 9/66-8/67 (Renewal); $75,982. (NICHD)

This research proposes to provide a qualitative analysis of

developmental failure. One area of research involves the standardization and extension to infancy of the developmental evaluative techniques developed by Else Raeussermann; and psychophysiological studies of autonomic response, motor conditioning, and certain language functions in normal, retarded and emotionally disturbed children.

1140. DEVELOPMENT OF BILIRUBIN METABOLISM (RO1 03004-01); Ulstrom, Robert A., University of Minnesota, Minneapolis, Minn.; 12/66-11/67 (Initial); $22,873. (NICHD)

This research proposes to study the in vivo rate of formation of bilirubin and the rate of breakdown of circulating red blood cells simultaneously by the use of stable isotopes. An attempt will be made to determine whether an enterohepatic shunt of bilirubin is of physiologic importance in the early days of life.

1141. DEVELOPMENT OF CONCEPTIONS OF PSYCHOLOGICAL CAUSALITY (RO1 02574-02); Whiteman, Martin, Columbia University, New York, N.Y.; 6/67-5/68 (Renewal); $25,102. (NICHD)

This research proposes to study the developmental problem, the problem of experiential background, and the behavioral significance problem by interviewing children with respect to their understanding of the motivations of a child in a number of story situations, with each story exemplifying in rudimentary form a different mechanism of adjustment.

1142. DEVELOPMENT OF HIGH VOLTAGE ELECTROPHORESIS USES (RO1 00040-04); Mabry, C. Charlton, University of Kentucky, Lexington, Ky.; 2/67-1/70; (Renewal); $15,120. (NICHD)

This research includes devising HVPE means for the rapid partition of certain organic substances in biologic fluids and perfecting their subsequent quantitative measurement by appropriate color development and direct densitimetry; the clinical phase of the project includes the screening and studying patients with neurologic and/or metabolic deficits possibly involving the organic substances to be measured in their sera and urine.

1143. DEVELOPMENT OF LIVER ENZYMES (RO1 00375-11); Nemeth, Andrew M., University of Pennsylvania, Philadelphia, Pa.; 9/66-8/67 (Renewal); $14,608. (NICHD)

This research proposes to investigate the developmental pattern of enzymes unique to the liver in the adult mammal and to study the factors that may control this pattern and the enzyme formation in cultured liver cells.

1144. DEVELOPMENT OF PROBLEM-SOLVING STRATEGIES (RO1 01654-02); Odom, Richard D., Vanderbilt University, Nashville, Tenn.; 9/66-8/67 (Renewal); $15,241. (NICHD)

This research proposes to investigate the effects of certain variables on the development of problem-solving strategies. Probability learning tasks will be employed and certain subject and task variables will be manipulated. The performance of subjects from populations characterized by such factors as low intelligence, cultural deprivation, and old age will be investigated.

1145. EEG AUDIOMETRICS IN THE SEVERELY RETARDED; (HD 01655); Reneau, John P., Wisconsin State Department of Public Welfare, Madison, Wisc., 9/66-8/68 (Renewal); $17, 728. (NICHD)

This research proposes to develop and adapt a radio telemetry EEG computer system with which auditory threshold may be assessed and an evaluation made of overt auditory behavior.

1146. EFFECT OF AMINO ACIDS ON METABOLISM, EEG, AND BEHAVIOR (RO1 01823-05); McKean, Charles M., Sonoma State Hospital, Eldridge, California; 4/67-3/68 (Renewal); $37,313. (NICHD)

This research focuses upon the therapeutic significance of the possibility of a resulting qualitative or quantitative abnormality of cerebral protein synthesis in human CSF and in the CSF and brains of pigs rendered hyperphenylalaninemic in infancy. Preliminary data suggesting electrophysiological changes in the presence of high CSF phenylalanine is being further studied.

1147. EFFECTS OF RNA AND DNA ON EMBRYONIC CEPHALIC TERATA (RO1 00827-04); Hillman, Nina W., Temple University, Philadelphia, Pennsylvania; 6/67-5/68 (Renewal); $40,343. (NICHD)

This research involves treating embryos at early stages of development with RNA specificity. The RNA's being tested are primarily from heart, liver and brain. The time that the RNA affects the embryo is being studied to acertain whether its effects are time dependent. Investigations are also being conducted in the chick to determine whether ectoderm can be "canalized" to form specific structures which are the same as the tissue source of the RNA.

1148. EFFECTS OF VIRUSES ON HUMAN CHROMOSOMES (RO1 02774-01); Eisen, James D., University of Nebraska, Lincoln, Nebr.; 10/66-9/69 (Initial); $38,400. (NICHD)

This research attempts to further elucidate the role of viruses in human mental retardation congenital malformations and fetal or neonatal death by a systematic study in vitro and in vivo of effects of various viruses upon human chromosomes and to investigate in depth the in vivo effects on human chromosomes of the cytomegalic inclusion disease virus, recently recognized as important in the etiology of the above problems.

1149. ELECTRON MICROSCOPY OF DEVELOPING HUMAN LUNG (RO1 01406-03); Burke, Barbara A., University of Minnesota, Minneapolis, Minn.; 1/67-12/67 (Renewal); $18,890. (NICHD)

This research proposes to trace the development of the respiratory tissue of the human lung at the ultrastructural level and to relate findings to prior investigations and continuing research efforts regarding the etiology of Respiratory Distress Syndrome (R.D.S.) and its associated structural and biochemical abnormalities.

1150. ELECTROPHYSIOLOGY OF NORMAL AND ABNORMAL CHILDREN (RO1 01815-02S1); Shanzer, Stefan, Mt. Sinai Hospital, New York, N.Y.; 5/67-8/67 (Renewal); $12,540. (NICHD)

This research aims to obtain more quantitative data than are now available on the normal and abnormal human nervous system,

from birth to 5 years of age by combining pediatric neurological examination with electrophysiological tests.

1151. EVOKED EEG POTENTIALS AND DIET OF PREMATURE INFANTS (RO1 01405-03); Gordon, Harry H., Yeshiva University, New York, N.Y.; 1/67-12/68 (Renewal); $77,184. (NICHD)

This research proposes to correlate the electroencephalographic findings, sensory evoked responses and behavioral maturation of the prematurely born infant and determine the relationship between these measurements and the concentrations in blood of a number of amino acids, as affected by renal amino acid clearances and by variations in dietary intake of protein, ascorbic acid, and other vitamins.

1152. EXPERIMENTAL CNS LESIONS AND PSYCHOSOMATIC MATURATION (RO1 02277-02); Kling, Arthur, University of Illinois, Chicago, Ill.; 6/67-5/70 (Renewal); $57,939. (NICHD)

This research proposes to continue its investigations into the differential effects of early vs. late localized brain injury in carnivors and primates. The program is being extended to investigate the neurol mechanisms by which functional sparing following ablations of anatomically defined brain areas occurs by extending the ablations to include related cortical regions and related subcortical structures in cat and monkey.

1153. EXPERIMENTAL PKU INDUCED BY ENZYME INHIBITORS (RO1 01972-02); Mitoma, Chozo, Stanford Research Institute, Menlo Park, Calif.; 2/67-1/69 (Renewal); $23,668. (NICHD)

This research proposes to synthesize and evaluate potential inhibitors of phenylalanine hydroxylase. So far, the most potent inhibitor with a minimum of side-effects has been found to be esculetin (6,7-dihydroxycoumarin). The ultimate objective is to study brain biochemistry as it relates to mental retardation and neurological pathology.

1154. EXPERIMENTAL PHENYLKETONURIA IN INFANT RATS (HD 02669); Longenecker, J.B., University of Texas, Austin, Texas; 1/67-12/69 (Initial); $41,194. (NICHD)

This research proposes to produce a permanent mental defect in rats by nutritional and/or biochemical means which may duplicate those found in phenylketonuria and lead to the same type permanent brain damage as occurs in the hereditary disease. The eventual aim is to use this "experimental system" to determine whether the severe amino acid imbalance in the blood can affect protein synthesis in the brain in such a way so that mental development is permanently impaired.

1155. FACTORS INFLUENCING EXPERIMENTAL KERNICTERUS (RO1 02015-02); Lucey, Jerold F., University of Vermont, Burlington, Vt.; 2/67-1/71 (Renewal); $26,626. (NICHD)

This research proposes to develop techniques that might increase the resistance of human infants to hyperbilirubinemia by a study of comparative susceptibility to kernicterus of a few newborn animal species. Asphyxia, acidosis, hypoglycemia, hypoalbuminemia,

hypocalcemia and respiratory distress will be considered.

1156. FACTORS IN SURVIVAL OF APNEIC NEWBORN MAMMALS (RO1 00226-05); Goodlin, Robert C., Stanford University, Stanford, Calif.; 1/67-12/67 (Renewal); $26,027. (NICHD)
This research proposes to study various aspects of fetal physiology using a hyperbaric oxygen immersion chamber. With tracheal catheters, fetal alveolar membrane excretion of electrolyte, bilirubin and glucose is being determined.

1157. FETAL AND NEONATAL DETOXIFICATION MECHANISMS (RO1 02800-01); Brown, Audrey K., Medical College of Georgia, Augusta, Ga.; 10/66-9/67 (Initial); $27,357. (NICHD)
This research proposes to investigate factors influencing excretion of bilirubin and to study the function of excretion of bilirubin and the rate of bile flow in newborn animals. The bile will be assessed for bilirubin C-14 and BSP S-35 which will be infused through the femoral vein.

1158. FETAL DISTRESS AND ASSOCIATED PLACENTAL CHANGES (RO1 00547-06); Gruenwald, Peter, Sinai Hospital of Baltimore, Baltimore, Maryland; 9/66-8/68 (Renewal); $43,914. (NICHD)
This research concerns investigation of placental changes in relation to fetal outcome. Low birth weight, perinatal death, and neonatal disease are studied and because pathologic changes in the placenta are correlated with this, the lobular architecture of the placenta, and the points of entry of maternal vessels into the intervillous space are investigated.

1159. FETAL INSULIN AND ANTI-Rh SENSITIZATION (RO1 02171-01); Steinke, Jurgen, Harvard University, Boston, Mass.; 7/66-6/68 (Initial); $20,650. (NICHD)
This research concerns elevated levels of acid ethanol extractable pancreatic insulin in fetuses of mothers with diabetes, mothers treated with large doses of steroids or sex hormones during pregnancy, and in babies with severe erythroblastosis fetalis. The latter finding was completely unexpected and has prompted a detailed study.

1160. FETAL LUNG FLUID (1)(RO1 01275-02); (2)(RO1 01275-02S1); Adams, Forrest Hood, University of California, Los Angeles, Calif.; (1)9/66-8/68; (2)12/66-8/68 (Renewal); (1)$17,995; (2)$22,062. (NICHD)
This research proposes to gain further information regarding the normal processes of the development of fetal lung function and to perform experiments that will lead to a better understanding of the pathophysiology of neonatal hyaline membrane disease ("idiopathic respiratory distress syndrome").

1161. FINE STRUCTURE OF ABNORMAL NEUROGENESIS (RO1 01922-01A1); McDonald, Thomas F., Medical College of Georgia, Augusta, Ga.; 8/66-7/69 (Initial); $29,686. (NICHD)
This research proposes a broad study of malformations of the central nervous system using electron microscopy to investigate the early development of malformations as found in experimental animals after treatment with various teratogens and as may be seen in concepti collected from human abortions.

1162. FUNCTIONAL ASPECTS OF PULMONARY IMMATURITY (RO1 02644-01); Auld, Peter A.M., Cornell University, New York, N.Y.; 1/67-12/69 (Initial); $30,098. (NICHD)

This research proposes to define in physiologic terms the limits of pulmonary function in the small premature. Application of this knowledge to the clinical problem of respiratory insufficiency will suggest new therapeutic maneuvers anticipated to improve mortality and reduce physical and mental morbidity in this high risk group.

1163. GENETICS OF BRAIN ANATOMY AND BEHAVIOR (RO1 02491-01); Wimer, Richard E., Jackson Laboratory, Bar Harbor, Maine; 2/67-1/72 (Initial); $30,078. (NICHD)

This research proposes to determine the relationship between behavior and chosen anatomical characteristics of the brain. By selective breeding of mice, phenotypic extremes in relative amounts of total brain tissue, neocortex, and hippocampus shall be produced and associated changes in behavior shall be sought and analyzed.

1164. GROWTH RETARDATION OF THE HUMAN FETUS (RO1 01871-03); Wilson, Miriam G., University of Southern California, Los Angeles, Calif.; 6/67-5/68 (Renewal); $25,097. (NICHD)

This research involves the comparison of infants with fetal growth retardation with infants of normal birth weight for gestational age as regards natal bone development, neonatal linear bone growth, and subsequent growth and development during infancy and early childhood.

1165. HUMAN CHROMOSOMAL ANOMALIES (RO1 00062-03S1); Sternberg, William H., Tulane University, New Orleans, La.; 6/67-8/67 (Renewal); $9,010. (NICHD)

This research concerns a study of abnormal sex differentiation in humans using techniques of chromosomal analysis, clinical and hormonal studies, pathologic study of surgical material and pedigree studies of affected families. Gonadal dysgenesis, hermaphroditism and testicular feminization are among the disorders under study.

1166. HUMAN CYTOGENETICS (RO1 00358-05); Palmer, Catherine Gardella, Indiana University, Bloomington, Ind.; 2/67-1/69 (Renewal); $24,168. (NICHD)

This research concerns the study of human chromosome breakage and morphology in leukocyte cultures and fibroblasts using purine and pyrimidine analogs. Distribution of breakage is compared to time of replication and segment of chromosome. The use of base analogs in inducing chromosome markers is being explored and patients with multiple congenital anomalies are being studied.

1167. HYPERLYSINEMIA: STUDY OF LYSINE METABOLIC PATHWAY (RO1 02920-01); Woody, Norman C., Tulane University, New Orleans, La.; 5/67-4/69 (Initial); $19,236 (NICHD)

This research proposes to determine the location of the metabolic block for 3 related girls in whom the diagnosis of hyperlysinemia has been made.

1168. HYPOXEMIA, ACIDEMIA AND CAPILLARY PERMEABILITY (RO1 02704-01); Taylor, Paul Mitchell, Magee-Women's Hospital, Pittsburgh, Pennsylvania; 1/67-12/71 (Initial); $16,666. (NICHD)

This research proposes to determine the relative susceptibilities of the pulmonary capillaries of adult and 2-week-old dogs to hypoxemia, acidemia and hypoxemia plus acidemia. A background for the study of methods of preventing or hastening recovery from increases in pulmonary capillary permeability caused by acute metabolic insults is anticipated.

1169. HYPOXIA, METABOLISM, AND NEONATAL THERMOREGULATION (RO1 02531-01); Baum, David, University of Washington, Seattle, Wash.; 10/66-9/69 (Initial); $10,683. (NICHD)

This research proposes to elicit the biochemical effects of acute and chronic hypoxia on thermogenesis in the human infant, and to extrapolate the findings for use in the medical care of the hypoxemic infant.

1170. INFANT PSYCHOPHYSIOLOGICAL SYSTEMS (RO1 00869-05); Groth, Hilde, University of Hawaii, Honolulu, Hawaii; 9/66-8/69 (Renewal); $64,013. (NICHD)

This research proposes to delineate differences in the basal levels of central and autonomic nervous system activity, and to establish their patterning, and to evaluate the co-variations of central and autonomic nervous system activity as a function of spontaneous behavioral activity changes, reactivity to sensory stimulation and reactivity to conditions of minimal and moderate stress.

1171. INITIATION AND CONTROL OF RESPIRATION OF TERM LAMBS (RO1 00239-05); Harned, Herbert Spencer, Jr., University of North Carolina, Chapel Hill, N.C.; 9/66-8/68 (Renewal); $28,691. (NICHD)

This research proposes to evaluate the importance of O_2 lack, CO_2 excess, and hydrogen ion excess in the initiation and control of breathing in term lambs.

1172. INTERMEDIARY METABOLISM IN PREMATURE INFANTS (RO1 00373-11); Brazie, Joseph V., University of Colorado, Denver, Colo.; 9/66-8/67 (Renewal); $22,759. (NICHD)

This research concerns various aspects of intermediary metabolism in well and sick newborn infants with emphasis on glucose utilization, individual free fatty acid metabolism, amino acid metabolism, bilirubin metabolism in fetus affected with erythroblastosis, and long term follow-up studies on physical, neurological and intellectual handicaps in newborns with special metabolic problems.

1173. INTERMODAL TRANSFER IN NORMAL AND DYSLEXIC SUBJECTS (RO1 02471-01); Elam, Claude B., Ft. Worth Society for Crippled Children and Adults, Inc., Fort Worth, Texas; 2/67-1/68 (Initial); $11,542. (NICHD)

This research proposes to identify methods of alleviating one of the causes of dyslexia. The present intent is to obtain an experimental description of this condition and investigate the efficacy of certain therapeutic techniques in its attenuation.

1174. INTESTINAL TRANSPORT OF AMINO ACIDS IN PKU (RO1 01796-02); Yarbro, Marina T., University of Minnesota, Minneapolis; 7/66-6/67 (Renewal); $16,922. (NICHD)

This research proposes to investigate intestinal absorption of amino acids in patients with phenylketonuria, normal controls, and in everted hamster intestinal sac, in order to attempt to establish the existence of a common transport mechanism for phenylalanine, tyrosine and tryptophan that may help to explain the metabolic abnormalities encountered in this disease.

1175. INVESTIGATION OF THE PEPTIDES IN HUMAN SERUM AND URINE (RO1 02633-01); Buist, Neil Robertson MacK., University of Oregon, Portland, Ore.; 12/66-11/69 (Initial); $25,519. (NICHD)

This research proposes to further the investigation of the peptides in human urine and serum and to apply the knowledge acquired to the study of disease states.

1176. ISOSENSITIZATION CAUSED BY PREGNANCY OR TRANSFUSION (RO1 00533-08); Stern, Kurt, University of Illinois, Chicago, Ill.; 4/67-3/69 (Renewal); $15,565. (NICHD)

This research concerns conditions that inhibit immune responses to red cell antigens with emphasis on formation of isoimmune or heteroimmune hemoantibodies when there are two or more antigenic differences between the immunizing red cells and the host to be immunized.

1177. LEARNING AND TRANSFER IN DISCRIMINATIONS BY RETARDATES (RO1 01349-03); Shepp, Bryan E., Brown University, Providence, Rhode Island; 4/67-3/68 (Renewal); $25,811. (NICHD)

This research concerns studies of learning and related processes in normal and retarded children and are conducted in the context of visual discriminative situations. A principal emphasis is the study of covert mediating responses, the properties of such responses and the variables which affect acquisition, extinction, and transfer of mediating.

1178. LOWER SES CHILD REARING AND COGNITIVE DIFFERENTIATION (RO1 02804-01); Deutsch, Martin, New York University, New York, N.Y.; 3/67-2/70 (Initial); $65,325. (NICHD)

This research concerns the enumeration and description of cognitive abilities related to school achievement. Previous research has dealt with such factors as developmental differences in cognitive abilities and differences between socioeconomic groups.

1179. LUNG SURFACTANT, ORIGIN AND IDENTITY (RO1 01464-04); Klaus, Marshall H., Stanford University, Stanford, California; 12/66-11/67 (Renewal); $8,508. (NICHD)

This research aims to: identify chemically the lung surfactant; develop a quantitative assay for the lung surfactant; determine lung surfactant in conditions associated with abnormal surface tension diagrams; and search for the origin or precursor of the lung surfactant using the assay as a tool.

1180. METABOLIC ABNORMALITIES IN MENTAL RETARDATION (RO1 02986-01); Newcombe, David S., University of Virginia, Charlottesville, Va.; 5/67-4/70 (Initial); $38,844. (NICHD)

This research is a part of a long-term study of secondary metabolic pathways and transport systems affected by primary metabolic errors. A screening program for the detection of the primary disorders is being conducted, and has provided the case material for the present study of aminoimidazole carboxamide and pseudouridine metabolism and of aminoimidazole homocysteinylribose.

1181. METABOLIC AND CIRCULATORY STUDIES IN INFANTS (RO1 00251-06); Adams, Forrest Hood, University of California, Los Angeles, Calif.; 5/67-4/70 (Renewal); $36,926. (NICHD)

This research proposes to calculate systemic and pulmonic flows and to determine the effect of acetylcholine on pulmonary circulation in normal term and premature infants and in infants with respiratory distress and to determine the optimal ambient temperature for babies with pulmonary distress syndrome (hyaline membrane disease) and with heart disease.

1182. MATABOLIC DISORDERS AND MENTAL DEFICIENCY (RO1 00324-12); Berry, Helen K., Children's Hospital, Cincinnati, Ohio; 4/67-3/70 (Renewal); $84,357. (NICHD)

This research involves studies of children with hyperglycinuria using C^{14}-glycine showing decreased converstion of glycine to CO_2; studies of phenylaline metabolism in guinea pigs consisting of phenylalanine loading tests administered at various ages beginning at birth, followed by assay of phenylalanine hydroxylase activity in liver; and studies of patients with Hurler's syndrome using urine for separation and identification of the mucopolysaccharides and skin fibroblasts grown in tissue culture.

1183. METABOLIC ERRORS ASSOCIATED WITH MENTAL DEFICIENCY (RO1 01124-03); Bixby, Emily May, Wrentham State School, Wrentham, Mass.; 9/66-8/67 (Renewal); $20,475. (NICHD)

This research concerns the continuation of a screening program for amino acid and protein metabolism at an institution for mental retardates, with studies on hydroxyprolinemia, on aminoaciduria involving the neutral amino acids, on excretion of an unidentified sulfur-containing amino acid, and on other variations from the usual normal pattern of amino acid exretion.

1184. METABOLIC STUDIES IN MONGOLISM (RO1 03011-01); McCoy, Ernest E., University of Virginia, Charlottesville, Va.; 10/66-9/67 (Initial); $30,623. (NICHD)

This research proposes to discover biochemical differences between children with Down's syndrome and non-affected controls; determine if the biochemical differences are the result of trisomy for chromosome 21; determine the mechanism of biochemical differences observed in the child with mongolism; and explore the relationship of biochemical differences in the child with Down's syndrome to the profound mental retardation.

1185. METABOLISM OF DRUG SUBSTRATES BY HUMAN PLACENTA (RO1 02991-01); Juchau, Mont R., State University of New York, Buffalo, N.Y.; 5/67-4/70 (Renewal); $17,070. (NICHD)

This research proposes to explore systematically the capabilities of human placental tissue at various gestational stages to metabolize drug substrates. The studies are needed because of possible

relationships of placental drug metabolic process to abnormal or unusual effects of drugs on the pregnant mother and the effects of drugs on the fetus and newborn.

1186. NEURO-CHEMICAL CHANGES WITH EXCESS AMINO ACIDS (RO1 02301-02); Waisman, Harry Aaron, University of Wisconsin, Madison, Wisc.; 2/67-1/69 (Renewal); $45,264. (NICHD)

This research focuses upon experiments to measure incorporation of C^{14} from labeled amino acids into proteins of brain and liver homogenates. Incorporation of amino acids into proteins dispersed in non-aqueous media is a non-biological phenomena, and the configuration of the protein is important in determining the extent of the incorporation.

1187. NEWBORN SERUM PROTEIN AND IMMUNOLIGICAL ABNORMALITIES (RO1 01121-03); Thurman, William G., University of Virginia, Charlottesville, Va.; 1/67-12/67 (Renewal); $11,891. (NICHD)

This research concerns immunologic abnormalities in infants as related to their immunoglobulin patterns. Relationships to problems of low birth weight and development of anemia are new parameters under study.

1188. NUTRITIONAL AVAILABILITY OF GALACTOSIDES (RO1 02564-02); Kraynak, Matthew E., University of Oklahoma, Norman, Okla.; 5/67-6/68 (Renewal); $13,863. (NICHD)

This project proposes to determine the nutritional availability of galactose from oligosaccharides normally found in foods fed to galactosemic infants.

1189. NUTRITION AND GROWTH OF MENTALLY RETARDED CHILDREN (RO1 00088-04); Culley, William J., Muscatatuck State School, Butlerville, Indiana; 1/67-12/68 (Renewal); $21,110. (NICHD)

This research proposes to determine to what degree caloric needs of mentally retarded children are affected by their frequently short stature for their age and motor problems. It is also proposed to study what factors might contribute to their short stature with particular attention to be paid to endocrine function.

1190. PATHOGENESIS OF CENTRAL NERVOUS SYSTEM MALFORMATIONS (RO1 01503-03); Chamberlain, Jack G., University of California, San Francisco, Calif.; 4/67-3/68 (Renewal); $15,001. (NICHD)

This research proposes to study the development of abnormalities such as hydrocephalus caused by acute or chronic niacin deficiency in pregnant rats and the effects of niacin deficiency instituted early in gestation. These studies will be compared and contrasted with other dietary deficincies known to be teratogenic in mammals.

1191. PERCEPTUAL DEVELOPMENT AS RELATED TO READING PROGRESS (RO1 02090-02); Rudnick, Mark, University of Colorado, Denver, Colo.; 5/67-4/69 (Renewal); $17,376. (NICHD)

This research proposes to investigate the relationship of perceptual development to reading progress in elementary school age children. The research is designed to make a more adequate test of the hypthesis that auditory-visual transposition is related to reading, and to determine that advances in this ability precede advances in learning to read, rather than the reverse.

1192. PERCEPTUAL EXPERIENCE AND INFANT DEVELOPMENT (RO1 00314-04); Fantz, Robert L., Western Reserve University, Cleveland, Ohio; 9/66-8/67 (Renewal); $23,085. (NICHD)

This research aims to determine to what extent and in what ways the infant is affected by early perceptual experiences and whether these influences continue in later months and years.

1193. PERINATAL THYROID FUNCTION IN RELATION TO MATURATION (RO1 00415-05S1); Man, Evelyn B., Brown University, Providence, Rhode Island; 10/66-9/67 (Renewal); $17,400. (NICHD)

This research concerns butanol-extractable iodines, thyroxine-binding globulin and thyroxine-binding pre-albumin of pregnant women to be measured serially to establish norms. Their progeny will be followed through childhood with developmental examinations of the National Perinatal Project.

1194. PERINATAL VASCULAR CAUSES OF NEONATAL ATELECTASIS (RO1 02406-01); Barker, June Northrop, New York University, New York, N.Y.; 1/67-12/69 (Initial); $23,710. (NICHD)

This research concerns pulmonary morphometric and hemodynamic parameters measured in premature and term rats, rabbits and guinea pigs in order to test the validity of the following working hypothesis: non-optimal tissue turgidity and local unevenness of tissue turgidity at the moment of birth are considered to be the final common pathway to neonatal atelectasis.

1195. PERSISTENCE OF STRESS EFFECTS AS A FUNCTION OF AGE (RO1 02398-01); Riccio, David C., Kent State University, Kent, Ohio; 9/66-8/68 (Initial); $12,099. (NICHD)

This research aims to determine the permanence of behavioral and physiological modifications elicited by controlled traumatic experience at different stages of an animal's development by a series of experiments to measure the acquisition and retention of increased tolerance to a repeated stressor as a function of age.

1196. PHENYLALINE AND TRYPTOPHAN HYDROXYLATION IN PKU (RO1 02643-01); Hsia, David Yi-Yung, Children's Memorial Hospital, Chicago, Illinois; 12/66-11/69 (Initial); $24,320. (NICHD)

This research proposes to define more precisely the nature of the enzyme defect in phenylketonuria and related disturbances in the light of the more recently acquired information on the hydroxylation of phenylalanine and tryptophan in the liver and brain.

1197. PHENYLALANINE METABOLISM IN PHENYLKETONURIA (RO1 00774-04); Gruemer, Hanns-Dieter, Ohio State University, Columbus, Ohio; 1/67-12/68 (Renewal); $15,467 (NICHD)

This research concerns a study to be made of distribution and transport of amino acids in lower animals, afflicted with an accumulation disease. The effect of high concentrations of amino acids and eventually carbohydrates on tissue metabolism and in particular on brain, will be studied.

1198. PHOSPHOLIPID METABOLISM DURING DEVELOPMENT (RO1 02871-01); Weinhold, Paul A., University of Michigan, Ann Arbor, Mich.; 5/67-4/70 (Initial); $15,085. (NICHD)

This research proposes to describe the phospholipid metabolism of liver and lung during their functional development in the rat.

1199. PHYSIOLOGICAL ASPECTS OF PLACENTAL PERMEABILITY (RO1 01683-02); Blechner, Jack N., University of Florida, Gainesville, Fla.; 8/66-7/68 (Renewal); $19,902. (NICHD)

This research concerns quantitative observations of the transplacental exchange of respriatory and anesthetic gases, and a study of the effects of stress upon the permeability characteristics of the chorionic membrane. Measurements of oxygen and acid-base values in the bloods of apneic infants have been made during resuscitation.

1200. PHYSIOLOGIC STUDIES IN NEWLY BORN HUMAN INFANTS (RO1 00747-05); Oliver, Thomas K., Jr., University of Washington, Seattle, Wash.; 12/66-11/67 (Renewal); $28,564. (NICHD)

This research involves studies of thermoregulation, acid-base balance in health and disease, studies of infants of low births weight and of the alteration in body fluid compartments of infants born by elective caesarean section as compared to those born vaginally.

1201. PITUITARY-ADRENAL FUNCTION IN HYDROCEPHALUS (RO1 01527-03); Franks, Robert Cecil, Vanderbilt University, Nashville, Tenn.; 5/67-4/68 (Renewal); $11,968. (NICHD)

This research proposes to determine hypothalmic-pituitary-adrenal function in children after treatment for hydrocephalus by evaluation of diurnal variation in plasma cortisol, the response to methopyrapone, and responses to the stresses of surgery and fever. The frequency of abnormalities following reduction of increased intra-cranial pressure will be evaluated.

1202. PLACENTAL EXCHANGE, PARTICULARLY WITH O_2 and CO (RO1 01860-02); Longo, Lawrence Daniel; University of Pennsylvania, Philadelphia, Pa., 1/67-12/70 (Renewal); $18,053; (NICHD)

This research concerns the study of non-uniform distribution of maternal and fetal placental blood flow by measuring the placental exchange of inert gases, and by measuring the value of the partial pressure of oxygen in the uterine and umbilical venules draining individual cotyledons in sheep.

1203. PREGNANCY ISOIMMUNIZATION IN THE MOUSE (1)(RO1 01287-04S1); (2)(RO1-01287-05); Goodlin, Robert C., Stanford University, Stanford, Calif.; (1) 9/66-12/67; (2) 1/67-12/67 (Renewal); (1)$3,834; (2)$28,813. (NICHD)

This research proposes to study the effects of immunization of maternal mice to paternal gamma globulin isoantigens on young mice. Using an isotopically labeled antigen gamma globulin levels of young mice are determined after either <u>in utero</u> or nursing exposure to anti-allotype antibody.

1204. PRENATAL STIMULATION OF CORTICAL-NEURON PROLIFERATION (RO1 01909-02); Zamenhof, Stephen, University of California, Los Angeles, Calif.; 2/67-1/70 (Renewal); $26,822. (NICHD)

This research proposes to investigate the possibility of experimental increase in the number of cortical neurons by injecting

pituitary growth hormone during prenatal period (pregnant rats), i.e., before these neurons cease to divide. Preliminary experiments demonstrate the feasibility of such a project. The treated animals (rats) at maturity showed also an indication of improved learning ability.

1205. PULMONARY PHYSIOLOGY IN NEWBORN INFANTS (RO1 00236-06); Polgar, George, University of Pennsylvania, Philadelphia, Pa.; 4/67-3/68 (Renewal); $24,236. (NICHD)

This research proposes to examine perinatal respiratory function by determination of CO_2 production and blood-P_{CO_2} level and respiratory mechanics and ventilation during crying in newborn infants and to estimate the relationship of lung expansion and pulmonary blood flow in newborn lambs; and mechanical characteristics of the lungs near zero volume in newborn puppies.

1206. RED CELL CHANGES AND NEWBORN HYPERBILIRUBINEMIA (RO1 02298-04); Bentley, Herschel P., University of Alabama, Birmingham, Ala.; 1/67-12/68 (Renewal); $14,484. (NICHD)

This research aims to examine glycolysis in the red cell of the human newborn term and premature infant and to see exactly where the deviations from the normal adult cell occur.

1207. RESEARCH PROGRAM ON RETARDED INTELLECTUAL DEVELOPMENT (PO1 00973-04); Dunn, Lloyd M., George Peabody College for Teachers, Nashville, Tenn.; 6/67-5/71 (Renewal); $233,084. (NICHD)

This research focuses upon oral and written language development of the culturally and mentally retarded; the assessment of the effects of various reinforcement schedules; discrimination and learning associative and mediation processes; the social adjustment of the retardate; social referents of institutionalized retardates; and psycho-motor development of retarded children in the community.

1208. RESPIRATORY STUDIES IN THE NEWBORN PERIOD (RO1 00281-07); Avery, Mary Ellen, Johns Hopkins University, Baltimore, Md.; 9/66-8/68 (Renewal); $34,590. (NICHD)

This research concerns studies on acid-base changes in spinal fluid of exteriorized fetal lambs. The time course of changes in pH during induced alkalosis and acidosis will be measured and related to respiratory activity. The effects of rates of change in H^+ concentration in blood and spinal fluid on respiration will be investigated.

1209. ROLE OF FOLATES AND DERIVATIVES IN PHENYLKETONURIA (RO1 01421-03); Copenhaver, John H., University of Nebraska, Omaha, Nebr.; 1/67-12/67 (Renewal); $13,842. (NICHD)

This research proposes to examine the roles of pteridine derivatives in the conversion of phenylalanine to tyrosine in phenylketonuric subjects, and to investigate the effects of these pteridine derivatives on the fetal rat hepatic phenylaline hydroxylase production in the developing rat fetus and the interrelationships of placental transport and fetal uptake.

1210. SALIVARY GLAND PHYSIOLOGY IN MONGOLISM (RO1 02305-02); Winer, Richard A., Tufts University, Boston, Mass.; 2/67-1/69 (Renewal); $21,968. (NICHD)

This research concerns salivary metabolism in mentally retarded persons. Electrolyte composition, pH, and secretory rates of parotid and submandibular saliva were obtained from approximately 15 mongoloid patients at Walter E. Fernald State School in Waverly, Mass. Further samples of saliva will be collected from non-mongoloid mentally retarded and normal individuals and the resultant data will be compared.

1211. SHORT-TERM MEMORY IN THE RETARDED CHILD (RO1 02898-01); Scott, Keith G., University of Illinois, Urbana, Ill.; 6/67-5/70 (Initial); $23,058 (NICHD)

This research proposes to investigate the causes of interference in children's short-term memory and see how this relates to intelligence and development. The results should give further scientific information about development of procedures and contribute to the training and management of the retarded.

1212. STEROID METABOLISM DURING GROWTH AND MATURATION (1)(RO1 00371-13); (2)(RO1 00371-13S1; Bongiovanni, Alfred M., Children's Hospital of Philadelphia, Philadelphia, Pa.; (1) 9/66-8/68; (2) 1/67-8/68 (Renewal); (1)$38,524; (2)$15,902. (NICHD)

This research concerns assays for growth hormone and insulin in plasma of normal and of children with illness. It is planned to establish an assay for adrenocorticotrophic hormone and then to define those physiologic stimuli which control the secretion and release of these hormones in healthy children and compare these findings with the study of children with varied diseases.

1213. STIMULUS FACTORS IN VERBAL LEARNING OF RETARDATES (RO1 02588-02); Baumeister, Alfred A., University of Alabama, Birmingham, Ala.; 6/67-5/68 (Renewal); $22,281. (NICHD)

(No abstract supplied)

1214. STUDIES IN EXPERIMENTAL ERYTHROBLASTOSIS FETALIS (RO1 01385-03); Jackson, Benjamin T., Boston University, Boston, Mass.; 1/67-12/67 (Renewal); $20,914. (NICHD)

This research concerns the development and further study and definition of an animal model for <u>in utero</u> fetal hemolytic disease, and will be carried out in dogs and based upon the previously well described blood group systems in that species.

1215. STUDIES IN HUMAN GENETICS (RO 1 00486-12); Childs, Barton, Johns Hopkins University, Baltimore, Md.; 10/66-9/68 (Renewal); $35,160. (NICHD)

This research concerns cytogenetic studies of patients with chromosome abnormalities, enzyme variations in Drosophila, and study of lipid metabolism in a patient with hyperglycinemia.

1216. STUDIES OF COGNITIVE FUNCTION IN TURNER'S SYNDROME (RO1 01716-02); Garron, David C., Presbyterian-St. Luke's Hospital, Chicago, Ill.; 9/66-8/67 (Renewal); $9,441. (NICHD)

This research proposes a study of intellectual functioning in persons with Turner's syndrome, a group of anatomic anomalies traced to chromosomal aberrations. To learn more of the nature and development of special disorders and to correlate a delimited

intellectual impairment with a specific chromosomal aberration is anticipated.

1217. STUDIES OF NEONATAL BLOOD DISORDERS (RO1 00254-07); Bernstein, Seldon E., Jackson Laboratory, Bar Harbor, Me.; 12/66-11/70 (Renewal); $23,336. (NICHD)

This research proposes to obtain information on the nature of the regulatory mechanisms that control hematopoiesis, through an analysis of action of mutant genes which alter the normal growth and development of blood-forming tissue. Seven of the 11 known hereditary anemias of mice are currently under study.

1218. STUDY OF MEIOSIS IN RELATION TO MENTAL RETARDATION (1)RO1 01343-02S1; (2)(RO1 01343-03); Melnyk, John, Children's Hospital of Los Angeles, Los Angeles, Calif.; (1)7/66-3/70; (2) 4/67-3/70 (Renewal); (1)$5,128; (2)$33,692. (NICHD)

This research proposes to examine the meitoc chromosomes of retarded individuals with and without anatomical congenital malformations, who do not demonstate mitotic chromosomal abberations.

1219. THE CONTROL OF VASCULAR RESISTANCE IN THE FETAL LUNG (RO1 00250-05); Lauer, Ronald M., University of Kansas, Kansas City, Kan.; 4/67-3/68 (Renewal); $4,001. (NICHD)

This research proposes to investigate the necessity of heurovascular reflexes in the mediation in fall of fetal pulmonary vascular resistance with the initial respiration. The animal preparations to be used are fetal lambs still connected by their cords to the placental circulation.

1220. THE INFANTS VOCALIZATIONS (RO1 00332-09); Karelitz, Samuel, Long Island Jewish Hospital, New Hyde Park, N.Y.; 4/67-3/70 (Renewal); $25,824. (NICHD)

This research proposes to determine whether early crying activity and other subsequent vocalizations are diagnostic of the current status of the child's central nervous system and whether they are predictive of his future intellectual and speech development.

1221. THE STUDY OF PERIPHERAL METABOLISM OF THYROXINE (RO1 01132-03); Cunningham, Russell D., University of Alabama, Birmingham, Ala.; 9/66-8/67 (Renewal); $16,065. (NICHD)

This research proposes to study the peripheral metabolism of thyroxine in normal and diseased newborn infants employing PBI, thyroxine binding capacity of various proteins and free-thyroxine level. The studies will be carried out serially in individual infants.

1222. TISSUE HEPARIN LEVELS IN FETUS AND NEWBORN (RO1 00665-05); Reiner, Charles B., Ohio State University, Columbus, Ohio; 5/67-4/68 (Renewal); $21,736. (NICHD)

This research involves the assay of samples of lung, liver, kindney and placenta obtained from humans at autopsy for heparin-like activity in order to establish a developmental pattern and assess possible relationship to pathogenesis of disease.

1223. TISSUE METABOLISM IN NEWBORNS AFTER HYPOXIA (RO1 00431-06); Stave, Uwe, Fels Research Institute, Yellow Springs, Ohio; 4/67-3/68 (Renewal); $25,860. (NICHD)

This research proposes to study the greater tolerance of newborns under hypoxia conditions from enzymological and energy metabolic aspects, comparing the results in newborn and adult rabbits. Two groups of enzyme activities in liver, kidney, skeletal muscle, and heart muscle of rabbits will be studied.

1224. TRANSPLACENTAL PASSAGE OF FETAL ERYTHROCYTES (RO1 00505-08); Cohen, Flossie, Child Research Center of Michigan, Detroit, Mich.; 4/67-3/70 (Renewal); $47,307. (NICHD)

This research concerns the transplacental passage of fetal cells and its relationship to isoimmunization of pregnancy. Several women are being studied during consecutive pregnancies. Previously sensitized women requiring amniocentesis and the more severe ones where the infants require intrauterine transfusion are included in the study.

1225. ULTRASTRUCTURAL STUDIES IN MAMMALIAN TERATOGENESIS. (RO1 02616-01); Ferm, Vergil H., Dartmouth College, Hanover, N.H.; 2/67-1/70 (Initial); $33,152. (NICHD)

This research proposes to investigate sequentially the fine structural alterations in placental and selected embryonic tissues following the introduction of known teratogenic and embryonic agents into the pregnant laboratory animal. The use of specific agents and techniques adaptable to electron microscopic investigation will constitute the experimental basis for these objectives.

1226. ULTRASTRUCTURAL STUDIES OF THE LUNG (RO1 02459-01); Kikkawa, Yutaka, Yeshiva University, New York, N.Y.; 9/66-8/69 (Initial); $32,448. (NICHD)

This research concerns a combined biochemical and morphological study using radioactive palmitic acid to assess: the pathway of palmitate in the lung, particularly in type II epithelial cell; the relationship of mitochondrion and inclusion body; and the chemical nature of the inclusion body and the surface lining layer.

1227. URINARY TAURINE AND SERUM URIC ACID IN MONGOLISM (RO1 02206-02); Goodman, Harold O., Wake Forest University, Winston-Salem, North Carolina; 6/67-5/69 (Renewal); $13,115. (NICHD)

This research involves a search for linkage of loci regulating morphological and biochemical traits in mongolism to chromosome 21. Since excretion of urinary taurine among most mongoloids has been shown to be below levels found in non-mongoloid subjects, studies aimed at elucidating the metabolic basis for the observed difference include loading studies using taurine and pre-taurine metabolic precursors, tracer and clearance studies.

1228. VALUE OF CONTINUOUS FETAL HEART MONITORING IN LABOR (RO1 01700-02); Seitchik, Joseph N., Sinai Hospital of Baltimore, Baltimore, Md.; 2/67-1/69 (Renewal); $55,245. (NICHD)

This research concerns continuous monitoring of uterine contractions and fetal heart during labor to: evaluate practices in assessment of fetal distress; define the if and when of continuous fetal heart monitoring; evaluate the health of the fetus in labor; develop equipment for obtaining the data; and evaluate special techniques for retrieval of labor data.

1229. WORD ASSOCIATION NORMS -- ADOLESCENT RETARDATES (RO1 01706-01A1); Edward R. Johnston Training and Research Center, Bordentown, New Jersey; (Initial); $22,869. (NICHD)

This research proposes to obtain word association norms for middle- and high-grade mental retardates of both sexes for ages ranging from 11 to 19 and compare the obtained norms with each other and with corresponding norms obtained for normal children to determine how sex, mental age, IQ, and chronological age affect word association.

1230. BEHAVIORAL CORRELATES OF NEUROPHYSIOLOGICAL VARIABLES (MH-5806-06); Satterfield, James H., Washington University School of Medicine, St. Louis, Missouri; 1/67 (Renewal); $26,052. (NIMH)

This research proposes to test the hypothesis that sensory evoked responses are reduced in generalized, nonresponsive states in schizophrenic patients; hallucinatory states in psychiatric patients, and "selective non-responsive states" in patients with regional functional sensory loss. Sensory evoked responses will be studied in the above groups by means of an averaging technique.

1231. NEUROPATHOLOGY IN MENTAL ILLNESS AND DEFICIENCY (MH-8603-04); Woodward, John S., Camarillo State Hospital, Camarillo, Calif., 1/67 (Renewal); $40,027. (NIMH)

This research intends to define better the incidence of each morphologic criterion of brain abnormality and the specific relationship if any to mental disorder. A practical method will be developed for routine examination of the brain in cases of mental disorder, especially in the absence of gross pathology. This study is designed for the procurement of selected and morphologically evaluated brain tissues for special studies including biochemical analysis.

1232. PSYCHOPHARMACOLOGIC STUDIES OF ADRENERGIC TRANSMITTER (MH-3663-08); Clark, William G., University of California School of Medicine, Los Angeles, Calif.; 12/66 (Renewal); $1,487. (NIMH)

This research focuses upon a study of brain amines and the effects of nicotine, lesions, and early stress; histamine formation and inhibition; amphetamine effects and biosynthesis of catecholamines; and identification of new dipeptides and amines in bovine brain.

1233. PTERIDINE CO-FACTORS IN AMINO-ACID METABOLISM (MH-8331-03); Wood, Hamish, University of Strathclyde, Glagow, United Kingdom; 10/66 (Renewal); $6,960. (NIMH)

This research involves a chemical study of the synthesis and properties of dihydropteridines similar to those known to be involved as enzyme co-factors. It is hoped that this investigation will clarify the mechanism of action of the co-factors, and suggest new synthetic routes to these compounds.

1234. BIOCHEMICAL STUDIES OF MYELINATION (5300-04); McKhann, Guy M., Stanford University School of Medicine, Palo Alto, Calif.; 5/67-4/68 (Renewal); $24,134. (NINDB)

This research focuses on the synthesis of individual myelin lipids and the transport from their site of synthesis to the myelin sheath. Sulfatides, the 3'-sulfate esters of galactocerebrosides, are lipid components of the myelin sheath and will be investigated in terms of synthesis, intracellular location, and transport as a lipoprotein in brain.

1235. BIOCHEMISTRY OF SPHINGOSINE AND SPHINGOLIPIDS (6770-01); Moscatelli, Ezio A., University of Texas Southwestern Medical School, Dallas, Texas; 9/66-8/67 (Initial); $14,011. (NINDB)

This research focuses upon sphingosine base compositions and other compositional data to be accumulated on sphingolipids of normal mature, normal imnature, and diseased human brain. Similar studies will be made of sphingolipids of nervous and other tissues of various species.

1236. BRAIN FUNCTION AND THE METABOLISM OF MACROMOLECULES (7457-01); Wilson, John E., University of North Carolina School of Medicine, Chapel Hill, N.C.; 3/67-2/68 (Initial); $41,969. (NINDB)

This research proposes to determine the influence of environmental changes, and of responses to these changes, on the metabolism of macromolecules of the central nervous system. The ultimate goal is to determine the functions of RNA and protein in learning, memory-habituation, imprinting and motivation.

1237. BRAIN FUNCTIONS IN METABOLIC DISORDERS (4928-04); Posner, Jerome D., Cornell University Medical College, New York, N.Y.; 12/66-11/67 (Renewal); $31,209. (NINDB)

This research proposes to investigate in metabolic diseases relationships between the brain's behavioral, electrical and biochemical function and systemic chemical abnormalities.

1238. CEREBRAL ENZYMES IN NORMAL AND CONVULSIVE STATES;(6294-02); Sellinger,O.Z., University of Michigan School of Medicine, Ann Arbor, Mich.; 6/67-5/68 (Renewal); $38,391. (NINDB)

This research involves delineation of the mode of attachment of cerebral glutamine synthetase to subcellular membranes; investigating, the diversity in subcellular localization of cerebral lysosomal hydrolases; and study of the mechanisms whereby methionine sulfoximine, a convulsant with periodic action inactivates the enzyme glutamine synthetase.

1239. CORTICAL DENDRITES (4239-05); Coleman, Paul, University of Maryland School of Medicine, Baltimore, Maryland; 9/66-8/67 (Renewal); $16,146. (NINDB)

This research focuses upon brains of S1 (maze-bright) and S3 (maze-dull) rats stained according to the Golgi-Cox method. The rats were previously tested in the Hebb-Williams maze and Lashley maze. Brains of rats reared in the dark have been stained according to the Golgi-Cox method. Detdrites of individual cells of the rats and cats will be measured and counted.

1240. EFFECT OF GROWTH ON BULK RNA AND A NEW RNA FRACTION (6734-01); Penn, Nathar W., Willowbrook State School, New York State Dept. of Mental Hygiene, Staten Island, New York; 2/67-1/68 (Initial); $22,576. (NINDB)

This research concerns the study of the participation of dRNA in the incorporation of amino acids into brain protein.

1241. EFFECTS OF ACUTE BILIRUBIN INTOXICATION ON THE CNS (6899-01); Schutta, Henry S., Pennsylvania Hospital, Philadelphia, Pa.; 1/67-12/67 (Initial); $22,166. (NINDB)

This research proposes to define the morphology of lesions occurring in acute bilirubin intoxication, since it appears that the acute type of bilirubin damage bears a close relationship to the events occurring in human bilirubin intoxication.

1242. ELECTROENCEPHALOGRAPHIC STUDIES IN NEWBORN AND YOUNG INFANTS (3166-07); Engel, Rudolf, University of Oregon Medical School, Portland, Ore., 1/67-12/67 (Renewal); $30,594. (NINDB)

This research is a continuation of electroencephalographic observations on maturational patterns in EEG including responses to photic and acoustic stimulation in premature and full term infants with normal and abnormal neurological findings. Racial and sexual differences also are being evaluated.

1243. ELECTRON MICROSCOPY AND BIOCHEMISTRY OF LIPIDOSES (2977-06); Volk, Bruce W., Isaac Albert Research Institute of the Jewish Chronic Disease Hospital, Brooklyn, New York; 8/66-7/67 (Renewal); $29,893. (NINDB)

This research proposes to determine whether a cellular deficiency of an acid hydrolase is basic to the pathogenesis of some lipidoses; to investigate the development of these lesions to determine their morphogenesis and relationship to other cellular organelles; and to evaluate the storage process in several strains of serially sacraficed mice with hereditary storage or demyelinating diseases.

1244. ELECTRON MICROSCOPY OF NUTRITIONAL ENCEPHALOPATHY (6918-01); Young, Paul A., St. Louis University School of Medicine, St. Louis, Mo., 2/67-1/68 (Initial); $25,483. (NINDB)

This research proposes to produce cerebellar degeneration in newly-hatched chickens by feeding them on diets high in unsaturated fats and deficient in vitamin E. Chickens fed on normal diets with adequate amounts of vitamin E will be used as controls. At selected times experimental and control animals will be killed and the cerebellar tissue removed and processed for electron microscopic study.

1245. ETIOLOGY AND CONSEQUENCES OF PERINATAL BRAIN DAMAGE (1620-09); Wolf, Abner, Columbia University College of Physicians and Surgeons, New York, N.Y.; 4/67-3/69 (Renewal); $95,265. (NINDB)

This research proposes to study, in rats, the possibility of overcoming or ameliorating the retarding effects of prenatally-induced brain damage upon later learning and memory abilities by means of specific drug treatments and/or sensory stimulation administered to the injured animal during its early development.

1246. HISTOPHATHOLOGIC PATTERNS IN THE BRAIN OF THE PERINATAL PERIOD (7388-01); Terplan, Kornel L., Research Foundation of State University of New York, Albany, New York; 5/67-4/68 (Initial); $24,521. (NINDB)

This research proposes the study of the central nervous system in relation to congenital heart disease with particular attention to the functional types.

1247. LIPID COMPOSITION OF BRAIN IN PATHOLOGICAL STATES (1847-09); Rauser, George, City of Hope Medical Center, Duarto, Calif.; 10/66-9/67 (Renewal); $58,316. (NINDB)

This research proposes to study the roles of polar lipids of the nervous system in animals and man and to correlate findings with data on anatomy, physiology, enzymology and permeability; and to define alterations in lipid composition of brain and subcellular particles of brain in some pathological states in man.

1248. MOLECULAR NEUROBIOLOGY (4270-05); Lederberg, Joshua, Stanford University, Stanford, Calif.; 12/66-11/67 (Renewal); $61,576. (NINDB)

This research proposes to extract and fractionate brain proteins, and to characterize them with respect to amino acid composition, cellular localization, functional significance, developmental, genetic and pathological variation. Isolated fractions will be examined for rate of synthesis and degradation of the polypeptide chain, and for exchange of episequential -- NH_2 and NHR.

1249. MORPHOLOGY AND CYTOCHEMISTRY OF DEVELOPING SYNAPSES (4179-05); Maynard, Edith A., The University of Michigan, Ann Arbor, Michigan; 9/66-8/67 (Renewal); $13,222. (NINDB)

This research involves a fine structural and electron-microscopic-cytochemical study of synapses in the lobster's stomatogastric ganglion; sub-cellular localization of the electrophoretically separable multiple molecular forms of acetylcholinesterase found in skeletal muscle and brain of chickens; and light microscope studies of degeneration and regeneration of neurons in the central nervous system of spiny lobsters.

1250. NEURAL MECHANISMS OF LEARNING AND BEHAVIOR IN APLYSIA (7458-01); Lickey, Marvin E., University of Oregon, Eugene, Ore.; 3/67-2/68 (Initial); $26,699. (NINDB)

This research proposes a combined program of behavioral and neurophysiological experiments focused on the problem of neural mechanisms of learning. A comparatively simple organism whose nervous system provides favorable material for a fine grained neuro-physiological analysis, the marine gastropod Aplysia californica, is the organism of choice for the study.

1251. NEUROPATHOLOGY OF THE AGEING MENTAL RETARDATE (6882-01); Solitare, Gilbert B., Yale University School of Medicine, New Haven, Conn.; 8/66-7/67 (Initial); $11,022. (NINDB)

This research concerns a detailed histopathological study of the brains of mentally-retarded individuals, including histochemical and electron-microscopic techniques, with particular emphasis upon the adult population.

1252. NEUTRON ACTIVATION ANALYSIS IN NEUROLOGICAL DISORDERS (5119-02); Williamson, Thomas G., University of Virginia, Charlottesville, Virginia; 1/65-11/66 (Renewal); $16,198. (NINDB)

This research proposes to study the effect of trace quantities of heavy metals in neurological disorders in humans and laboratory animals. The technique for detecting the elements is that of neutron activation analysis. The elements being investigated are manganese and arsenic.

1253. PATHOGENESIS OF INHERITED DEVELOPMENTAL BRAIN DISEASE (3262-07); Sidman, Richard L., Harvard Medical School, Boston, Mass.; 6/67-5/68 (Renewal); $57,364. (NINDB)

This research involves the study of mice with inherited diseases of the brain, particularly diseases that affect the brain while it is forming. The behavior of developing brain cells is analyzed in order to give new ideas on normal brain development and to suggest mechanisms of human diseases causing mental retardation.

1254. PHYSIOLOGICALLY ACTIVE SUBSTANCES FROM NEURAL TISSUE (6966-01); Chaet, Alfred B., University of West Florida, Pensacola, Fla.; 5/66-2/67 (Renewal); $2,000. (NINDB)

This research involves the continuation of work on the shedding substance, a neurosecretion from the radial nerve of starfish, which appears to stimulate the release of ripe gametes by stimulating gonadal contractions, and inducing gamete maturation.

1255. QUANTITATIVE HISTOCHEMICAL STUDIES UPON CEREBRAL CORTEX (361-14); Pope, Alfred, McLean Hospital, Belmont, Mass.; 9/66-8/67 (Renewal); $25,448. (NINDB)

This research concerns experiments on the architectonic profiles of selected chemical structural components and enzymes in cortex from patients with presenile dementias, including correlations of biochemical data with histopathological findings. Experiments will be made on rats on the distribution patterns within cortical architectonic layers, subjacent white matter, and caudate nucleus of selected chemical structural components in relation to experimental cyanide encephalophy.

1256. STORAGE DISEASE -- INTRACELLULAR TRANSPORT AND DIGESTION (6856-01); Goldfischer, Sidney L., Albert Einstein College of Medicine of Yeshiva University, Bronx, New York; 2/67-1/68 (Initial); $34,505. (NINDB)

This research proposes to investigate intracellular transport, digestion and storage, particularly in hepatocytes, Kupffer cells, neurons and glia. Combined cytochemical electron microscopic and electron probe micro-analytical techniques will be employed to study the intracellular localization of hydrolases and the uptake and storage of proteins and metals.

1257. STUDIES OF INTRACEREBRAL AMMONIA (NH_3) TOXICITY (5841-03); Schenker, Steven, University of Cincinnati College of Medicine, Cincinnati, Ohio; 9/66-8/67 (Renewal); $27,912. (NINDB)

This research proposes to study the interference with cerebral energy metabolism due to excess NH_3 as a cause of hepatic encephalopathy.

1258. STUDIES OF TETRAPLOID DNA STATUS OF PURKINJE CELLS (7100-01); Lapham, Lowell W., University of Rochester Medical Center, Rochester, New York; 2/67-1/68 (Initial); $15,120. (NINDB)

This research proposes to achieve an understanding of the significance of tetraploidy in Purkinje neurons in terms of its role in cell metabolism. Timed pregnant females will be used to provide animals which can be studied at successive intervals throughout the period of prenatal and postnatal maturation of the cerebellum.

1259. STUDY OF BRAIN HISTOLOGY IN THE PERINATAL PERIOD (3889-05); Riggs, Henena E., Philadelphia General Hospital, Philadelphia, Pa.; 9/66-8/67 (Renewal); $12,041. (NINDB)

This research proposes an investigation of the anatomic substrata of infantile cerebral palsy and mental retardation by evaluating the degree of maturation of the brain in the perinatal infant, and investigation of occult lesions predisposing to defective postnatal brain development.

1260. THE ENZYMATIC FORMATION OF PYRIDOXAL PHOSPHATE (4490-03); Coursin, David B., St. Joseph Hospital, Lancaster, Pa.; 4/65-3/67 (Renewal); $22,956, (NINDB)

This research concerns the enzymatic formation of pyridoxal phosphate from pyridoxine and pyridoxamine. Clinical problems, particularly of the central nervous system type may arise from faulty or inadequate interconversion of the various forms with diminution of the necessary coenzynatic forms.

1261. TRACE MINERALS IN NEUROLOGICAL AND PSYCHIATRIC ILLNESS (1943-07); Peters, Henry A., University of Wisconsin, Madison, Wisc.; 4/65-2/67 (Renewal); $16,920. (NINDB)

This research proposes to broaden the scope of cation analysis in biological fluids by atomic absorption spectrophotometer and other techniques. These determinations will be correlated with prophyrin metabolic studies and in some instances tryptophan tolerance studies. Feeding experiments to produce induced porphyria in laboratory animals will be continued using hexachlorobenzene, Sedormid, etc.

1262. VITAMIN B_6 AND CENTRAL NERVOUS SYSTEM FUNCTION (1)(5789-02); (2)(5789-02S1); Coursin, David B., St. Joseph Hospital, Lancaster, Pa.; (1) 6/66-5/67; (2) 5/1/67-5/31/67; (Renewal); (1) $30,600; (2) $6,120. (NINDB)

This research proposes to correlate biochemical findings in experimental vitamin B_6 deficiency with the behavior of the animal in terms of ability to learn and retain memory of learning. Electroencephalographic tracings with evoked response techniques will provide information on the status of this neuro-physiological parameter for correlation with biochemical and behavioral data.

1263. CNS AND NUTRITIONAL INFLUENCES OF AMINO ACIDS IN PKU (MR-07002-03); Allen, Richard P., University of Michigan, Ann Arbor, Mich.; 12/1/65-11/30/69; (Renewal); $20,713 (SRS)

This research focuses upon the central nervous system and nutritional effects of low phenylalanine treatment or the lack

of it on the variable manifestations of phenylketonuria in 54 patients. Two groups are being compared: infants under treatment from the first few weeks of life and older normal children and adults with untreated phenylketonuria.

Diagnosis and/or Evaluation

1264. GALACTOSEMIA SCREENING OF NEWBORN IN THE COMMUNITY (H-124); London, Morris, North Shore Hospital, Manhasset, New York; 4/1/67-3/31/68 (Renewal); $34,740. (SRS)

This research is part of a continued study of screening the newborn for galactosemia and glucose-6-phosphate dehydrogenase deficiencies. A model system for checking the newborn in the community is being designed and advances in screening techniques will be attempted.

1265. NEUROLOGICAL FINDINGS AND SPECIFIC LEARNING DEFICITS IN PRESCHOOL CHILDREN (H-121); O'Connor, Patricia A., University of Michigan, Ann Arbor, Mich.; 12/1/66-11/30/67 (Renewal); $8,825. (SRS)

This research proposes to show that a carefully defined pediatric neurological examination of the pre-school age child may correlate better with psychological examinations and that the presence of minor neurological abnormalities may correlate with specific learning deficits.

1266. PSYCHOLOGICAL ASSESSMENT OF THE PRE-SCHOOL CHILD (H-135); Rosenber, Leon A., Johns Hopkins University, Baltimore, Md.; 12/1/66-11/30/67 (Renewal); $13,239. (SRS)

This research involves the application of a test based on an informational analysis of perceptual discrimination tasks to the severely retarded, organically impaired, the deaf, mute, or bed-ridden, and culturally deprived pre-school child.

1267. ADAPTIVE BEHAVIOR AND EEG IN MENTAL RETARDS (RO1 01798-02); Kun, Karoly J., Wrentham State School, Wrentham, Mass.; 7/66-6/68 (Renewal); $22,038. (NICHD)

This research proposes to relate particular EEG phenomena that have been found to relate importantly to mental retardation, to the adaptive behavior of retards as shown by retards' performance in the areas of personal self-care, social behavior, intellectual functioning, educational achievement, and occupational status.

1268. A STUDY OF MEIOTIC AND MITOTIC CHROMOSOMES IN MAN (1)(RO1 01313-04S1); (2)(RO1 01313-05); Punnett, Hope H., St. Christopher's Hospital for Children, Philadelphia, Pa.; (1)7/66-4/68; (2) 6/67-4/68 (Renewal); (1) $4,790; (2) $29,054. (NICHD)

This research proposes to identify the meiotic pachytene chromosomes in human males and to correlate their structure with mitotic chromosomes to identify biochemically the leukocyte growth factor and determine the biological nature of its action, and proceed with intensive genetic studies in families in which one or more has a chromosome aberration.

1269. CELLULAR ASPECTS OF HUMAN GENETICS AND IMMUNOLOGY (RO1 02552-01); Hirschhorn, Kurt, Mt. Sinai Hospital, New York, N.Y.; 9/66-8/71 (Initial); $160,705. (NICHD)

(No abstract supplied)

1270. CENTER FOR HUMAN BEHAVIOR GENETICS (PO1 00843-03); Vandenberg, Steven G., University of Louisville, Louisville, Kentucky; 9/66-8/68 (Renewal); $91,735. (NICHD)

This research involves a longitudinal study of twins seen at 3,6,9, 12, 18, and 24 months and every year thereafter -- a yearly study of twins in the public and private high schools in the metropolitan area of Louisville, and intensive study of various genetic anomalies.

1271. CHROMOSOME IDENTIFICATION IN CONGENITAL ANOMALIES (RO 1 01979-02); Luzzatti, Luigi, Stanford University, Stanford, Calif.; 2/67-1/69 (Renewal); $28,909. (NICHD)

This research concerns screening patients with multiple congenital anomalies for chromosome abnormalities. Work is in process to establish optimal concentration and length of exposure of thymidine to produce maximal synchronization of division cycle in leukocyte cultures.

1272. CHRONIC CONGENITAL RUBELLA (RO1 02569-02); Jones, Margaret Holden, University of California, Los Angeles, Calif.; 6/67-5/68 (Renewal); $18,758. (NICHD)

This research proposes to identify and study chronologically newborn infants with congenitally transmitted rubella virus infection but without manifestations of the clinical rubella syndrome.

1273. CYTOGENETIC STUDIES IN CONGENITAL DISEASES (RO1 00577-05); Finley, Wayne House, University of Alabama, Birmingham, Ala.; 10/66-9/67 (Renewal); $34,920. (NICHD)

This research concerns selection of patients with multiple malformations for cytogenetic studies so that correlation can be made between the cytological findings and clinical data. Patients selected are those with unclassified multiple malformation syndromes, those with Down's syndrome, and those likely to have sex chromosome aberration syndromes.

1274. CYTOGENETIC STUDIES OF HUMAN MALFORMATIONS (RO1 01429-03); Hollowell, Joseph G., Jr., Medical College of Georgia, Augusta, Ga.; 1/67-12/67 (Renewal); $5,784. (NICHD)

This research proposes to study, with the aid of established cytogenetic techniques, adults and children with functional and structural congenital abnormalities; particularly females with absence of the vagina and others with primary amenorrhea, and children with disturbances in growth and developmental progress.

1275. CYTOLOGICAL AND BIOCHEMICAL STUDIES IN HUMAN GENETICS (RO1 00635-04); German, James Lafayette, III, Cornell University, New York, N.Y.; 9/66-8/67 (Renewal); $61,298. (NICHD)

This research proposes the use of a combined cytological and biochemical approach to the study of genetical disorders as well as normal variation in man. This will include the study

of specific diseases with a biochemical defect as well as search for polymorphic systems and the biological significance as such.

1276. DERMATOGLYPHICS IN MENTAL RETARDATION (RO1 01507-02); Alter, Milton, University of Minnesota, Minneapolis, Minn.; 7/66-6/68 (Renewal); $17,027. (NICHD)

This research concerns the relationship of dermatoglyphic patterns and conditions associated with extra autosomal chromosomes disorders due to extra or deficient sex chromosomes, disorders due to chromosomal deletions and mosiac states, conditions attributable to a single abnormal gene, and conditions without a clear genetic basis.

1277. DEVELOPMENT OF EEG AND BEHAVIORAL RESPONSES TO STIMULI (RO1 02296-02) Barnet, Ann B., Children's Hospital Research Foundation, Washington, D.C.; 11/66-10/70 (Renewal); $60,424. (NICHD)

This research proposes to provide basic data on the maturation of the EEG and sensory evoked potentials of human infants during the course of development and will attempt to relate data obtained from psychological and neurological testing with the neurophysiological data.

1278. ELECTRONIC EVALUATION OF FETAL ECG AND HEART RATE (RO1 01467-03); Hon, Edward Harry, Yale University, New Haven, Conn.; 9/66-8/67 (Renewal); $64,615. (NICHD)

This research proposes to determine if specific types of fetal heart rate patterns and unusual fetal ECG's recorded during the course of labor and delivery are related to abnormal fetal biochemical determinations.

1279. HUMAN CHROMOSOMAL ANEUPLOIDY (RO1 00588-05); Mellman, William J., University of Pennsylvania, Philadelphia, Pa.; 6/67-5/68 (Renewal); $24,920. (NICHD)

This research concerns fibroblast cells derived from the skin of patients with aneuploidy and biochemically defined gene mutations established in long term culture. These cell cultures are being tested for the presence of biochemical defects.

1280. HUMAN NEONATAL EEG CORRELATES OF NEUROMORPHOLOGY (RO1 01814-05); Bartoshuk, Alexander K., Brown University, Providence, Rhode Island; 9/66-8/68 (Renewal); $13,883. (NICHD)

This research proposes to investigate how the neonatal EEG is related to neuromorphological data on maturation.

1281. LAB INDICIES OF HUMAN FETOPLACENTAL FUNCTION (RO1 02042-02); Carrington, Elsie R., Woman's Medical College of Pennsylvania, Philadelphia, Pa.; 6/67-5/69 (Renewal); $19,037. (NICHD)

This research proposes to reduce perinatal losses and to prevent intrauterine damage particularly neurologic and metabolic incurred by the fetus in high risk pregnancies. The production and excretion of estriol will be studied in normal and abnormal pregnancies.

1282. LONGITUDINAL AND RELATED PSYCHOHORMONAL STUDIES (RO1 00325-11); Money, John, Johns Hopkins University, Baltimore, Md.; 6/67-5/70 (Renewal); $31,775. (NICHD)

This research concerns homosexuality, precocious puberty and other syndromes; childhood and adult maternalism in endocrine and cytogenetic syndromes; tomboyishness and adrenogenital syndrome; male hermaphroditism; sex reassignment requests in hermaphroditism; testicular feminizing syndrome; personality in the XXY and XO syndromes; and body image in homosexuality and transsexualism and other paraphilias.

1283. NEONATAL ASSESSMENTS AND FOLLOW-UP VALIDATIONS (1)(RO1 02559-06S1); (2)(RO1 02559-07); Rosenblith, Judy F., Brown University, Providence, R.I.; (1)7/66-5/70; (2)6/67-5/70 (Renewal); (1)$2,371; (2)$16,760. (NICHD)

This research proposes to determine whether behavioral assessments of the newborn can serve a useful function in the early detection of neurologically impaired children.

1284. NEONATAL CRY-SOUND ANALYSIS IN PEDIATRIC DIAGNOSIS (RO1 01985-01A1); Truby, Henry M., Communication Research Institute, Miami, Fla.; 1/67-12/69 (Initial); $46,266. (NICHD)

This research concerns the demonstration and corroboration of a technique for providing clinical data independently indicative of the general and often specific physiological or pathological status of the newborn infant. Visual-acoustic records are useful as diagnostic criteria and are as individual as fingerprints or footprints.

1285. QUANTITATIVE HUMAN CHROMOSOME STUDY AIDED BY COMPUTER (RO1 02860-01); Neurath, Peter W., New England Medical Center Hospitals, Boston, Mass., 6/67-5/70 (Initial); $38,431. (NICHD)

This research concerns the performance of chromosome analyses in greater depth and on a larger percentage of patients by making use of the development of a computer-aided system of chromosome analysis. Clinicians can be included at the earliest possible stage and become familiar with the computer system, while engaged in chromosome research.

1286. SLEEPING AND WAKING STATES IN PREMATURE INFANTS (RO1 00351-06); Parmelee, Arthur H., Jr.; University of California, Los Angeles, Calif.; 5/67-4/68 (Renewal); $92,968. (NICHD)

This research proposes to determine diagnostic criteria for normal and abnormal brain function in newborn infants, both premature and full term, and in older infants by means of electroencephalographic and polygraphic recordings as well as behavioral observations of sleep and arousal.

1287. STUDIES ON THE INTERVILLOUS SPACE (PO2) (RO1 02802-01); Quilligan, Edward J., Yale University, New Haven, Conn.; 9/66-8/67 (Initial); $16,748. (NICHD)

This research proposes to determine the acid base status of the infant prior to onset of labor. Attempts will be made to correlate this acid base status with the fetal heart changes which occurred during labor in association with uterine contraction and the acid base status of the baby at the time of birth.

1288. THE CYTOGENETICS OF EMBRYONIC MALDEVELOPMENT (RO1 00594-06); MacIntyre, M.Neil, Western Reserve University, Cleveland, Ohio; 1/67-12/69 (Renewal); $42,354. (NICHD)

This research proposes to determine the biochemical activity of certain chromosomes by in vitro biochemical studies of abnormal human cell lines in which a specific chromosomal aberration exists, and pursue studies of the causes and means of determining chromosomal damage.

1289. A BEHAVIOR EVALUATION PROGRAM FOR RETARDED CHILDREN (MH-1354-04) Barrett, Beatrice H., Walter E. Fernald State School, Waverly, Mass., 9/66 (Renewal); $57,654 (NIMH)

This research seeks continuing support to extend the applicability of controlled techniques of behavior analysis to the most severely handicapped least understood children who will soon constitute the majority of institutional residents and to explore the usefulness of methods and findings of this research group in training institutional personnel and in designing more efficient, individually-tailored remedial procedures that will work for each child.

1290. ACTIVITY LEVEL AND BEHAVIOR PATHOLOGY IN CHILDREN (MH-7240-05); Kraft, Irvin, Baylor University College of Medicine, Houston, Texas; 2/67 (Renewal); $16,304. (NIMH)

This research involves an Activity Room to be used by children under age 13 who play ad lib with the toys for 5 minutes. A psychomotility test is used as a standard apparatus for measuring reaction time and movement time.

1291. A DIAGNOSTIC EVALUATION BRIEF CARE PROGRAM (MH-2160-03); Wildberger, William C., Woodward State Hospital-School, Woodward, Iowa; 6/67 (Renewal); $81,702. (NIMH)

This research proposes the establishment of a multi-disciplinary team in a diagnostic-evaluation setting; short-term admission would be provided for applicants for care and treatment plus brief admission to the service for pupil-patients on "trial visit" status in foster homes or vocational placements.

1292. ANALYTIC STUDIES OF VISUAL PERCEPTION (MH-8061-04); Leibowitz, Herschel W., Pennsylvania State University, University Park, Pa.; 9/66 (Renewal); $24,099. (NIMH)

This research aims to investigate various aspects of perceptual constancy with the goal of providing a quantitative data base on which to construct a theory of the mechanisms underlying these phenomena, and to provide techniques for extending considerations of constancy phenomena within a more general context.

1293. AN AUTOMATED PSYCHOLOGICAL TESTING BOOTH (MH-2565-01); Elwood, David L., Bartholomew County Mental Health Clinic, Columbus, Indiana; 1/67 (Initial); $31,381. (NIMH)

This research proposes the development of a technician operated automated psychological testing booth (TB) capable of presenting tape recorded verbal stimuli and performance test material (objects and pictures) upon request from the subject (subject presses a button) and would be capable of making tape recorded records of the subject's answers.

1294. BEHAVIORAL STUDY OF MENTALLY RETARDED CHILDREN (MH-12711-01); Chess, Stella, New York University Medical Center, New York, N.Y.; 10/66 (Initial); $38,207. (NIMH)

This research uses 50 middle-class children to study personality and behavioral organization of mentally subnormal individuals. This group, whose I.Q. is 50-75, M.A. 4-6, and living in their homes, minimizes complicating factors such as social and economic impoverishment, institutional exclusion from the community, and physical handicaps.

1295. BENDER-BIP STUDY WITH THE MENTALLY RETARDED (MH-12996-01); Bae, Agnes Y., Rosewood State Hospital, Owings Mills, Md.; 1/67 (Initial); $4,180. (NIMH)

This research proposes to determine the efficiency of the Bender Gestalt Test when applying Canter's Background Interference Procedure Method for the purpose of distinguishing organic mental retardates from non-organic mental retardates.

1296. COMPREHENSIVE EVALUATION OF MENTALLY RETARDED (MH-2272-02); Rondeau, Edward A., Pineland State Training School and Hospital, Columbia, S.C., 3/67 (Renewal); $100,000. (NIMH)

This research proposes to improve classification of trainees within dormitories for maximum benefits, evaluate the admissions waiting list, increase discharge rate of trainees who are prepared to return to community living and encourage local community interest concerning mental retardation.

1297. EXPERIMENTAL ANALYSIS OF BEHAVIOR IN RETARDATES (MH-12067-03); Bijou, Sidney W., University of Illinois, Urbana, Ill.; 4/67 (Renewal); $44,440. (NIMH)

This research proposes the systematic application of experimental procedures to an analysis of children with retarded development or mental retardation. Emphasis is on the discriminative and reinforcement processes, and the methodology is both laboratory-experimental and field-experimental.

1298. INKBLOT PERCEPTION AND PERSONALITY (MH-3223-08); Holtzman, Wayne, University of Texas, Austin, Texas; 9/66 (Renewal); $46,461. (NIMH)

This research proposes, in the 5th year of a 6-year longitudinal study, to give major emphasis to the developmental aspects of perception and related cognitive functioning in children. An overlapping design has been employed to study a 12-year developmental span in only 6 calendar years. Subjects consist of 338 normal children from 3 different grade levels, 3 years apart, starting with the 4th grade.

1299. LEARNING AND TRANSFER PROCESSES IN MENTAL DEFECTIVES (MH-1099-12); Zeaman, David, University of Connecticut, Storrs, Connecticut; 9/66 (Renewal); $72,201. (NIMH)

This research focuses on the opposing effects of intradimensional and extradimensional shifts in the attentional and retentional aspects of the discriminative learning of retardates.

1300. PERCEPTURAL FACTORS IN EMOTIONAL CONDITIONING (MH-3916-08); Grings, William W., University of Southern California, Los Angeles, Calif.; 5/67 (Renewal); $26,821. (NIMH)

This research focuses on the experimental modification (conditioning) of responses controlled by the autonomic nervous system. The responses of principal interest are the electrical changes in the skin (GSR), the rate of heart beat, and the distribution of peripheral blood flow. The goal of the research is to identify variables related to cognition and perception which are important determiners of the performance in conditioning situations.

1301. RETENTION IN AND RETRIEVAL FROM IMMEDIATE MEMORY (MH-8556-04); Buschke, Herman, Stanford University, Stanford, Calif.; 4/67 (Renewal); $19,477. (NIMH)

This research concerns short-term memory (STM) with special emphasis on information stored in or retrieved from STM; storage systems used in STM; retrieval systems used in STM; input and output memory; auditory-visual interaction in STM; attention, perception, and relations of simultaneous and serial processing; interaction of short- and long-term memory; erasure, cuing and partitioning in STM.

1302. ANALYSIS OF LOCAL BRAIN IMPEDANCE (7267-01); Birzis, Lucy, Stanford University, Stanford, Calif.; 12/66-8/67 (Initial); $14,562. (NINDB)

This research involves the recording of local cerebral impedance changes in unanesthetized cats with permanently implanted brain electrodes. Slow changes in magnitude of impedance and phasic changes correlated with the cardiac pulsations will be analyzed under various physiological conditions to gain an understanding of the significance of brain impedance and to study the hemodynamic readjustments of localized brain areas with activity.

1303. PHYSIOLOGIC STATES IN THE NEONATAL PERIOD (4945-03); Paine, Richmond S., Research Foundation of Children's Hospital, Washington, D.C.; 9/65-12/66 (Renewal); $18,696. (NINDB)

This research focuses on normal and abnormal babies (the latter group including both babies with depression of the functions of the central nervous system and those with convulsions of hyperactivity in response to mild stimuli) who will be studied during the first 5 days of life, or through later age if abnormal.

1304. AN EDUCATIONAL TEST OF THE LEARNING POTENTIAL HYPOTHESIS WITH ADOLESCENT MENTALLY RETARDED SPECIAL CLASS CHILDREN (OEG-32-31-0000-6019); Budoff, Milton, Cambridge Mental Health Association, Cambridge, Mass.; 2/1/66-1/31/68 (Renewal); $53,030. (OE)

This research proposes to test the learning potential hypothesis with special experimental curriculums; to study personality and motivational correlates of curriculum response as a function of learning potential status and in relation to the response of chronological-aged underachievers and mental-aged control; and to study the effects of content-oriented curriculums on stimulation of productive thinking.

1305. RETARDATION IN INTELLECTUAL DEVELOPMENT OF LOWER-CLASS PUERTO RICAN CHILDREN IN NEW YORK CITY (OEG 32-42-8145-5021); Thomas, Alexander, New York University Medical Center, New York, N.Y.; 6/1/65-5/31/68 (Renewal); $48,360. (OE)

2

This research focuses upon identification of detrimental behavioral and intellectual patterns which retard learning in a sample population of 250 disadvantaged Puerto Rican children in New York City. Efforts will also be made to determine those environmental factors surrounding these youth which contribute to detrimental growth patterns and those which can be used on the other hand to promote intellectual functioning.

1306. TOWARD CLASSIFYING CHARACTERISTICS RELATED TO THE EDUCABILITY OF MENTALLY RETARDED CHILDREN (OEG 32-42-0280-6014); Blackman, Leonard S., Columbia University, New York, N.Y.; 2/1/66-5/31/67 (Renewal); $1,000. (OE)

This research proposes to develop a conceptual framework, empirical techniques, and a statistical rational for generating an analytical school-relevant taxonomy of the psychological skills and school task requirements of mentally retarded children, and the specific interrelationships involved.

1307. ANTECEDENTS OF CHANGE IN MENTALLY RETARDED PERSONS AT MID-LIFE (RD-991-P); University of Nebraska, Lincoln, Neb.; 10/1/66-12/21/66 (Renewal); $1,037 (SRS)

(No abstract supplied)

1308. FACTORS CONTRIBUTING TO SUCCESSFUL COMMUNITY ADJUSTMENT OF DISCHARGED RETARDATES (RD-1606-P); Bowman, Peter W., Pineland Hospital and Training Center, Pownal, Maine; 7/1/66-6/30/67 (Renewal); $12,589. (SRS)

This research aims to provide a detailed description of the past and present lives of some 575 mentally retarded and deficient patients discharged from Pineland Hospital and Training Center, and to determine what predictive elements in the past life trajectories are most closely associated with post-discharge success and non-success.

1309. REASONING, MORAL JUDGMENT, AND MORAL CONDUCT OF RETARDATES (RD-2382-P); Stephens, Will Beth, Temple University, Philadelphia, Pa.; 2/1/67-1/31/68 (Renewal); $57,700. (SRS)

This research proposes to trace the development and assess the relationship among reasoning, moral judgment, and moral conduct of young male retardates. Structured situations have been devised to furnish opportunity to observe moral conduct.

1310. TECHNIQUES FACILITATING DISCRIMINATION LEARNING (RD-2286-P); Wunderlich, Richard A., Catholic University of America, Washington, D.C.; 7/1/66-6/30/67 (Renewal); $23,995. (SRS)

This research proposes to investigate several techniques which are expected to facilitate the learning of children under adverse conditions of contiguity. Both normal and retarded children will be studied. The proposed experiments have theoretical and practical significance to human learning.

1311. VOCATIONAL INTEREST AND SOPHISTICATION ASSESSMENT (RD-1221); Parnicky, Joseph J., Johnstone Training and Research Center, Bordentown, N.J.; 7/1/66-10/31/67 (Renewal); $38,853 (SRS)

This research proposes to permit the further development of the

validity and reliability of an experimental picture test of vocational interest and sophistication (VISA) which was evolved as a portion of a prior Office of Vocational Rehabilitation Demonstration and Research Project #425.

Prevention

1312. DIAGNOSTIC-THERAPEUTIC STUDIES OF HIGH-RISK PREGNANCY (H-192); Gold, Edwin M., New York Medical College, New York, N.Y.; 7/1/67-6/30/68 (Renewal); $194,848. (SRS)
This research proposes to apply certain biochemical and endocrine parameters to a program for study of "high-risk" pregnant women receiving total maternity care and to study the role of Thiazides, used prophylactically, on a specific group of "high-risk" pregnant women (gravida 16 years of age or younger).

1313. ASYMPTOMATIC BACTERIURIA IN PREGNANCY (RO1 02840-01); Whalley, Peggy J., University of Texas, Dallas, Tex.; 6/67-5/71 (Initial); $28,777. (NICHD)
This research proposes to determine if clinically apparent pyelonephritis can be prevented during pregnancy by treating women with persistent bacteriuria with a finite course of antimicrobial therapy rather than give antimicrobials continuously throughout gestation, and to evaluate the immunological response to determine if the response correlates with the course of the disease.

1314. PREVENTION OF HEMOLYTIC DISEASE OF THE NEWBORN (RO1 01955-02); Gorman, John G., Columbia University, New York, N.Y.; 2/67-1/71 (Renewal); $14,082. (NICHD)
This research involves the Rh Immuno-globulin IgG prepared from high titered anti-Rh antibody containing plasma pools. Injected intramuscularly it has produced passive titer of artificially stimulated Rh negative volunteers. Assessment of the effectiveness of Rh Immunoglobulin in preventing sensitization of Rh negative mothers at risk is underway.

1315. PREVENTION OF ISO-IMMUNIZATION WITH ANTI-Rh SERUM (1)(RO1 01504-02S1); (2) (RO1 01504-03); Jennings, Elmer R., Memorial Hospital of Long Beach, Long Beach, Calif.; (1)1/67-4/67; (2)5/67-4/69 (Renewal); (1)$4,446; (2)$27,416. (NICHD)
This research concerns hemolytic disease of the newborn caused by antibodies produced by the mother, usually in response to stimulation by fetal erythrocytes. An effort to prevent isoimmunization is being made by the prompt destruction of these fetal cells by a potent anti-Rh gamma globulin.

1316. COLLABORATIVE CROSS-CULTURAL CHILD REARING STUDY (MH-9228-02); Lourie, Reginal S., Children's Hospital, Washington, D.C.; 4/67 (Renewal); $38,677. (NIMH)
This research is a cross-cultural study of child rearing patterns between the Children's Hospital of the District of Columbia, and the Queen Anna-Maria Institute for Child Health in Athens,Greece. Cultural and environmental factors which predispose to disturbances of healthy emotional, cognitive, and physical development in the earliest years of life are the focus of special attention.

1317. MENTAL HEALTH DEVELOPMENT IN SPARSELY POPULATED AREAS (MH-458-05); Hinkle, John E., Southeast Wyoming Mental Health Center, Cheyenne, Wyoming; 7/66 (Renewal); $96,000. (NIMH)

This research proposes the establishment of a mental health program to meet the needs of s sparsely-populated rural area and to determine the effectiveness of such a program and the adaptability to similar regions.

1318. PREVENTION OF CULTURALLY DETERMINED RETARDATION (MH-10421-03); Lourie, Reginald S., Children's Hospital, Washington, D.C.; 10/66 (Renewal); $72,000 (NIMH)

This research proposes to establish programs for the first years of life to prevent culturally determined mental retardation. The project includes development of methodologies for documentation of individual progress in physical, intellectual and emotional development, and methods of child-rearing for day-care and full-time institutional care of children from deprived backgrounds.

1319. THE MENTALLY RETARDED AND THE LAW (MH-1947-03); Allen, Richard C., George Washington University, Washington, D.C.; 2/67 (Renewal); $87,370 (NIMH)

This research proposes to analyze the existing laws in every jurisdiction in the country affecting the mentally retarded; study the operation of these laws in actual practice in selected jurisdictions; bring to bear upon the analysis the insights and perspectives of a variety of disciplines, derive guidelines for new legislation; and publish the findings and recommendations of the project.

1320. A CLINICAL WORKSHOP IN MENTAL HEALTH AND PSYCHIATRIC NURSING FOR INSTRUCTORS IN SCHOOLS OF PRACTICAL NURSING (BR-7-0544); Lamar, C.F., University of Kentucky, Lexington, Ky.; 6/25/67-7/31/67 (Initial); $14,218 (OE)

(No abstract supplied)

1321. STUDIES OF HISTIDINEMIA AND OTHER METABOLIC DISORDERS (MR-07003-02); Baldridge, Robert C., Temple University School of Medicine, Philadelphia, Pa.; 10/1/65-8/30/68 (Renewal); $15,422 (SRS)

This research proposes to test a microbiological agar-plate procedure suitable for screening the blood of newborn infants for histidinemia. Its feasibility for use in a mass screening program to detect histidinemia will be determined. Similar procedures are being devised to detect tryptophanemia, tyrosinemia and phenylalaninemia.

Amelioration

1322. A DEVELOPMENTAL PROGRAM FOR THE SEVERELY RETARDED (MH-2239-02); Thorne, Gareth D., Arizona Children's Colony, Coolidge, Arizona; 2/67 (Renewal); $97,403. (NIMH)

This research proposes to establish a program for the severely or profoundly retarded to teach them to help themselves rather than give them predominantly custodial care.

1323. A PLAN TO REDUCE INSTITUTIONALIZATION OF THE MENTALLY RETARDED (MH-1765-03); Finn, Fred F., Seaside Regional Center, Waterford, Connecticut; 9/66 (Renewal); $85,206. (NIMH)

This research involves a community-oriented program mobilizing community agencies and services in behalf of retarded persons and their families. This will bring to the retarded a wide array of services which have not been used in the past and to the community a greater knowledge of the nature and needs of the retarded.

1324. CHILD DEVELOPMENT AND TRAINING SERVICES (MH-1769-04); Killian, E.W., Denton State School, Denton, Texas.; 6/67 (Renewal); $100,000. (NIMH)

This research concerns a multi-phase demonstration project for 4 groups of mentally retarded institutional residents: students who gained ambulatory skills prior to 6 years of age; severely and profoundly retarded who need an expansion program; the sensorily handicapped; and the semi-ambulatory.

1325. CONCENTRATED DORMITORY SERVICES (MH-2078-02); Parnicky, Joseph J., E.R. Johnstone Training and Research Center, Bordentown, N.J.; 1/67 (Renewal); $95,437. (NIMH)

This research focuses primarily upon the educable young adolescent boy within a residential rehabilitation center whose emotional and behavioral patterns require continuous, intensive, specialized help.

1326. DEVELOPMENTAL TRAINING FOR THE SEVERELY RETARDED (MH-2486-01); Fram, Joseph, Yakima Valley School, Selah, Washington; 1/67 (Initial); $86,550. (NIMH)

This research proposes that behavior modification and perceptual training producedures be applied to severely and profoundly non-ambulatory retardates with emphasis on developmental training. Specific programmed learning materials are to be developed for use on the wards with the above population.

1327. INTENSIVE SOCIALIZATION PROGRAM FOR MILDLY RETARDED (MH-2167-03); Roos, Philip, Austin State School, Austin, Texas; 6/67 (Renewal); $85,768 (NIMH)

This research places emphasis on development of effective working relationships with families and community agencies with particular focus on admission, pre-discharge and post-discharge contacts. Specific techniques of behavior modification will be selected from casework, group dynamics, counseling, operant conditioning and special education.

1328. PROGRAM FOR THE AMBULATORY SEVERELY RETARDED (MH-2544-01); Hospital for the Mentally Retarded, Delaware; 1/67 (Initial); $91,279 (NIMH)

(No abstract supplied)

1329. PROGRAM IMPROVEMENT FOR INSTITUTIONALLY DEPRIVED MALES (MH-1676-04); Porter, Robert M., State Home and Training School, Grand Junction, Colorado; 6/67 (Renewal); $100,000. (NIMH)

This project proposes to broaden the HIP team's activities by providing a 20-resident pre-placement cottage immediately and to provide a 107-resident female dormitory comparable to the male dormitory in June 1967. The project strives to provide environmental enrichment directed toward improvement in adaptive ability of each resident.

1330. RESIDENTIAL UNIT CARE (MH-2442-02); Henne, Frank R., Newark State School, Newark, N.Y.; 6/67 (Renewal); $97,234. (NIMH)

This research aims to provide individualized personalized nursing care for a ward of pre-school children. This plan will serve to develop a whole new concept of patient care for the retarded and it is hoped that the data obtained will ultimately raise the standards of care for all retardates.

1331. STAFF DEVELOPMENT PROJECT (MH-1816-03); Talkington, Larry W., Montana State Training School and Hospital, Boulder,Montana; 2/66 (Renewal); $88,600. (NIMH)

This research focuses upon intensifying programming for severely/profoundly retarded patients and emphasizes raising self-care levels of lower-level students in an endeavor to motivate, stimulate and reverse regression patterns of institutionalized residents.

1332. THREE PROJECTS FOR HOSPITAL IMPROVEMENT (MH-1701-03); Engberg, E.J. Faribault State School and Hospital, Faribault, Minnesota; 9/66 (Renewal); $58,494. (NIMH)

This research involves 3 projects for hospital improvement: appointment of a Coordinator of Research and Training; conducting a patient census of physical, behavioral, social and emotional characteristics; and conducting a behavioral survey to gather information for the patient census.

1333. UNIVERSITY COLLABORATION FOR HOSPITAL IMPROVEMENT (MH-2314-02); Jolly, Donald H., Muscatatuck State Hospital and Training Center, Butlerville, Indiana; 6/67 (Renewal); $80,290. (NIMH)

This research proposes collaboration between several university departments and the staff of a large State residential institution for the retarded. The aim is to improve care of the patients and to increase interest in teaching and opportunities for research on the part of the university.

Amelioration - Education

1334. A GROUP DAY CARE PROGRAM FOR CULTURALLY DEPRIVED CHILDREN AND PARENTS (D-185); George Washington University, Washington, D.C.; 8/1/66-7/31/68 (Renewal); $30,931. (SRS)

(No abstract supplied)

1335. ADJUSTMENT AND ACHIEVEMENT IN A DESEGREGATED SCHOOL (RO1 02863-01); Gerard, Harold B., University of California, Riverside, California; 6/67-5/72 (Initial); $223,750. (NICHD)

This research examines the antecedents, concomitants, and consequences of successful integration of Negro, Mexican-American, and white children in the elementary grades of the public school system. It assesses both long term and short term effects of desegregation. The major indices of success are academic achievement and emotional adjustment.

1336. EARLY INTELLECTIVE TRAINING AND SCHOOL PERFORMANCE (RO1 02253-02); Palmer, Francis H., City of New York, New York, N.Y.; 6/67-5/70 (Renewal); $78,356. (NICHD)

This research proposes to determine the effects of training children aged 2 and 3 upon subsequent performance in the first grade; to investigate the main and interactive effects of training, age of training, and social class on subsequent classroom performance; and to determine the relationship between education of parents, ordinal position, size of family, and other background characteristics.

1337. MATERNAL CONTACT AND PREMATURE INFANT DEVELOPMENT (RO1 01418-03); Silberstein, Richard M., Staten Island Mental Health Society, Staten Island, New York; 3/67-2/69 (Renewal); $125,185. (NICHD)

This research proposes to evaluate a program of in-hospital involvement of mothers in the care of low birthweight infants; the effect of this program on maternal attitudes and behavior in caring for their infants; the effectiveness of increased maternal care and stimulation on limiting disability associeted with prematurity; and provide comparative data on prematures of differing birthweights.

1338. A CHILD EXPERIENCE ENRICHMENT PROJECT (MH-2171-02); Smalldon, John L., Paul A. Dever State School, Taunton, Mass.; 12/66 (Renewal); $100,000 (NIMH)

This research proposes to give children in a State school for the mentally retarded richer experiences than personnel limitations could otherwise afford. The project provides 14 activity therpists who provide warmth, personal friendship and encouragement to growth through stimulating activities and experiences.

1339. A PLAN TO AID DEVELOPMENT IN DEPENDENT CHILDREN (MH-2277-02); Feinstein, Samuel, West Seneca State School, West Seneca, New York; 6/67 (Renewal); $100,000. (NIMH)

This research proposes to improve the socialization and habit training of youngsters between the ages of 5 and 11 so that some might be serviced in formal education and others be accorded the individual care and dignity deserved by all.

1340. A PROGRAMMED READING METHOD FOR MENTALLY HANDICAPPED (MH-1010-06); Woolman, Myron, Institute of Educational Research, Inc., Washington, D.C.; 5/67 (Renewal); $87,883. (NIMH)

This research proposes to study 40 classes of educable, trainable, slow learner, retarded, and/or emotionally immature children from culturally advantaged and culturally disadvantaged communities. Experimental classes will use the basal progressive choice reading program; control classes will use the current school methods. An attempt will be made to determine whether the bas 1 progressive choice reading program trained childrenare more upwardly mobile.

1341. CLASSICAL CONDITIONING IN RETARDATES AND NORMALS (MH-10235-03); Ross, Leonard E., University of Wisconsin, Madison, Wisc.; 9/66 (Renewal); $16,740. (NIMH)

This research uses classical eyelid conditioning techniques to investigate basic learning processes in normal and retarded children.

Parameters of interest include CS-UCS intervals, partial reinforcement effects, stimulus parameters and inhibition phenomena.

1342. DETERMINANTS OF LEARNING IN THE MENTALLY RETARDED (MH-10724-03); Ellis, Norman R., University of Alabama, University, Ala.; 9/66 (Renewal); $54,900. (NIMH)

This research focuses on the short-term memory processes as a possible major source of difference between normal and retarded subjects.

1343. DEVELOPMENT OF CHILD CARE SERVICES, (MH-1811-03); Doggett, Bill J., Travis State School, Austin, Texas; 2/67 (Renewal); $100,000. (NIMH)

This project provides training in basic self-help skills to 120 severely and profoundly retarded students through the use of operant conditioning or behavior shaping techniques.

1344. EDUCATION PROGRAM EXTENSION FOR MODERATELY RETARDED (MH-2278-02); Etling, George F., Wassaic State School, Wassaic, New York; 1/67 (Renewal); $70,914. (NIMH)

This research proposes to further expand and develop the educational training program for those moderately retarded who are 5 to 21 years old. The program is based on occupational education with practical subject matter and experiences on sequential levels.

1345. ENRICHED ENVIRONMENT FOR YOUNG RETARDED PATIENTS (MH-1751-03); Weir, Homer F., Plymouth State Home and Training School, Northville, Michigan; 6/67 (Renewal); $99,861. (NIMH)

This research provides an enriched institutional environment for 200 severely to moderately retarded children 4 to 11 years old, many of whom with intensive programming will be eligible for community life at least on a limited basis.

1346. FUNCTIONAL TRAINING PROGRAM (MH-2057-03); Dean, H.T., Fort Wayne State Hospital and Training Center, Fort Wayne, Indiana; 6/67 (Renewal); $99,832. (NIMH)

This research provides for the lower-functioning, more diffusely handicapped child, the up-grading sillls such as self-help, social competence, vocational, and various aspects of readiness skills of economic importance. This will enhance chances of some children to return to the community, and enable others to become productive members within the institution.

1347. INTENSIVE TRAINING FOR SEVERELY RETARDED CHILDREN (MH-2533-01); Silverman, Sol S., Warren G. Murray Children's Center, Centralia, Illinois; 1/67 (Initial); $99,975. (NIMH)

This research aims to obtain fuller returns from several promising training procedures through the increase of the aide-child ratio to AAMD standards. With additional aides the child will have direct social interaction with adult models, a quicker meeting of some of his needs, and a more systematic, frequent and prompt application of training procedures.

1348. LEARNING POTENTIAL AMONG THE EDUCABLE RETARDED (MH-10588-03); Budoff, Milton, Cambridge Mental Health Association, Cambridge, Mass.; 9/66 (Renewal); $48,820. (NIMH)

This research proposes to continue to study and modify a learning potential approach to classify low school achievers' ability to

profit from experience; re-standardize the Kohs Block Design Test on normal populations; and compare the EMR groups to samples of low and grade level achievers of dull to average ability of similar chronological and mental ages.

1349. MOTIVATIONAL FACTORS IN THE PERFORMANCE OF RETARDATES (MH-6809-05); Zigler, Edward F., Yale University, New Haven, Conn.; 9/66 (Renewal); $72,186. (NIMH)

This research proposes to investigate motivational and cognitive factors in the performance of average and retarded children. Central theoretical constructs are early pre-institutional and institutional social deprivation, individual differences in reinforcer hierarchy, success-approach and failure-avoidance motivation, and inner-versus outer-directed cognitive styles.

1350. OPERANT CONDITIONING OF RETARDATES (MH-6583-05); Gove, Roger M., Ohio State University, Columbus, Ohio; 9/66 (Renewal); $15,283. (NIMH)

This research proposes to evaluate reinforcement context, and to investigate discrimination or stimulus control procedures.

1351. PERSONALITY AND LEARNING IN RETARDED CHILDREN (MH-12627-01); Haywood, Carl H., George Peabody College for Teachers, Nashville, Tenn.; 9/66 (Initial). $28,863. (NIMH)

This research seeks to explore further the motivation-hygiene orientation which has been shown to influence the learning process. The objective is to assess the extent to which a selected personality characteristic interacts with intelligence to influence the efficiency of learning.

1352. PRE-PLACEMENT TRAINING PROGRAM (MH-2053-03); Giliberty, Frank R., Southbury Training School, Southbury, Connecticut; 6/67 (Renewal); $24,872. (NIMH)

This project deals with an extension of the existing placement program oriented toward the return of institution residents to the community. The need for this project was indicated by an analysis of "placement returnees" over a 2-year period.

1353. PROGRAM DEVELOPMENT FOR INSTITUTIONALIZED RETARDED (MH-1416-03); McCarthy, James J., Central Wisconsin Colony and Training School, Madison, Wisc.; 9/66 (Renewal); $31,872. (NIMH)

This research aims to apply environmental stimulation procedures to severely retarded, institutionalized infants and young children with the hope of overcoming the reported effects of institutional deprivation.

1354. PROGRAMMED HABILITATION OF SEVERELY RETARDED CHILDREN (MH-2130-02); Birnbrauer, Jay S., University of North Carolina, Chapel Hill, North Carolina; 9/66 (Renewal); $44,934. (NIMH)

This research aims to develop an effective total habilitation program for severely retarded children, made up of experimentally examined and replicable procedures which may be applied by those persons who have the most contact with the children, i.e., parents, attendant personnel, and teachers.

1355. PROGRAMMING FOR THE HIGHER FUNCTIONING RETARDATE (MH-2273-02); Husband, A.K., Greene Valley Hospital and School, Greeneville, Tenn.; 2/67 (Renewal) $86,403. (NIMH)

This research proposes to expand the institution's program for the higher functioning retardate to determine and demonstrate effective methods of training which will enable the higher functioning resident to develop and function as near his optimal capacity as possible.

1356. PROGRAMMING TO IMPROVE SOCIAL SKILLS OF RETARDATES (TM-2000-03); Fairview Hospital and Training Center, Oregon; 6/67 (Renewal); $89,067. (NIMH)

(No abstract supplied)

1357. PROGRAM PLANNING IN HOME ECONOMICS FOR EDUCABLES (MH-2030-03); Hession, J.B., Outwood State Hospital and School, Dawson Springs, Kentucky; 2/67 (Renewal); $22,707. (NIMH)

This research focuses upon aiding the institutional resident to develop skills in home living required for successful community habilitation. Emphasis is placed on training in sewing, food service and preparation, laundry, cleaning, good grooming practices, and remedial academics.

1358. PSYCHOLINGUISTIC METHODS FOR CLASSIFYING APHASIA (MH-1876-10); Wepman, Joseph M., University of Chicago, Chicago, Ill.; 11/66 (Renewal); $43,424. (NIMH)

This research relates to a psycholinguistic analysis of the free speech of normal children. Linguistic parameters considered are: lexical analysis by relative frequency of use of words and by words used as different parts of speech word-parts by frequency of occurrence of derivational affixes, other bound morphemes and by inflections; sentence units by constituent and transformational analyses; noun and verb phrase structure; clause structure; and errors in punctuation (Grammatical).

1359. REINFORCEMENT FUNCTIONS IN THE MENTALLY RETARDED (MH-11818-02); Orlando, Robert, George Peabody College for Teachers, Nashville, Tenn.; 9/66 (Renewal); $14,082. (NIMH)

This research examines the role of reinforcement in the learning and performance of the mentally retarded. Methodology is based on the experimental analysis of individual retardates in laboratory and natural settings.

1360. REMEDIATION OF DISTURBED AND RETARDED CHILDREN (MH-7346-03); Quay, Herbert C., University of Illinois, Urbana, Ill.; 9/66 (Renewal); $299,971. (NIMH)

This research concerns primarily psychoeducational problems in the remediation of mentally retarded and emotionally disturbed children.

1361. THERAPY FOR RETARDATES WITH COMMUNICATION DISORDERS (MH-1127-04); Schiefelbusch, R.L., University of Kansas, Lawrence, Kans.; 9/66 (Renewal); $110,631. (NIMH)

This research proposes the organization of a system of training through demonstration and dissemination of information in this clinical specialty. Participants will be selected on the basis of previous professional training and experience and on current professional activities. Integral to the project's operation will be the evaluation of demonstration organization and techniques.

1362. TODDLER TRAINING AND STIMULATION (TM-2407-02); Willowbrook, New York; 5/67 (Renewal); $99,655. (NIMH)
(No abstract supplied)

1363. TRAINING PROGRAM FOR RETARDED BLIND AND DEAF CHILDREN (MH-2177-02); Butler, George A., Sonoma State Hospital, Eldridge, California; 9/66 (Renewal); $83,291. (NIMH)
This project aims to provide a milieu in which blind and deaf retarded children can best develop to full potential. Blind and deaf children are grouped together on a single, divided, intensively staffed unit. Training is done in a therapeutic milieu with coordination of nursing staff, school, psychology, social service, and rehabilitation services.

1364. TRAINING SEVERELY RETARDED ADULTS FROM THE BACK WARDS (MH-2175-02); Farrell, Malcolm J., Walter E. Fernald State School, Waverley, Mass.; 9/66 (Renewal); $74,700. (NIMH)
This research proposes to promote development of skills such as self-help, self-care, gross and fine motor, social and receptive, and expressive language; and to promote work habits, relaxation and enjoyment; and to determine the effects of integration of male and female patients on personal grooming and social behavior.

1365. TRAINING THE UNTRAINABLES AT WRENTHAM STATE SCHOOL (MH-2180-02); Meshorer, Edward, Wrentham State School, Wrentham, Mass.; 9/66 (Renewal); $100,000 (NIMH)
This research uses operant conditioning procedures with severely retarded male and female patients; it is planned that within a 10-year period, approximately 250 trainees will achieve a mastery of their self-help skills.

1366. USE OF VOLUNTEERS AS TRAINERS OF RETARDED CHILDREN (MH-2120-02); Roos, Philip, Austin State School, Austin, Texas; 1/67 (Renewal); $25,617. (NIMH)
This research, the Volunteer Project, proposes to extend itself to the Social Service and Psychology Departments, where volunteers will be trained in administering simple psychological tests and thus attempt to alleviate the shortage of manpower in this area.

1367. A CURRICULUM CENTER IN SOCIAL LEARNING FOR SPECIAL CLASS PROGRAMS FOR THE EDUCABLE MENTALLY RETARDED (OEG 32-42-1700-6018); Goldstein, Herbert, Yeshiva University, New York, N.Y.; 6/1/66-6/30/68 (Renewal); $133,235. (OE)
This research concerns a center to develop and provide a comprehensive program in social learning for special teachers of the educable mentally retarded.

1368. A DEMONSTRATION OF THE USE OF THE TEACHER INITIATED STEP-BY-STEP TEACHING SEQUENCE AS A MEANS OF IMPLEMENTATION OF CURRICULAR CONTENT IN CLASSROOMS FOR MILDLY (EDUCABLE) MENTALLY RETARDED OEG-3-6-061910-1599; Thorsell, Marguerite, Kansas State Department of Public Instruction, Topeka, Kansas; 6/1/66-5/31/68 (Renewal); $55,097. (OE)
This research proposes to develop the step-by-step teaching sequence as a means of implementing curricular content, and to develop a program of regional demonstration classes to be used for practice teaching and as visitation centers for inservice training programs.

1369. A DEMONSTRATION-RESEARCH PROJECT IN CURRICULUM AND METHODS OF INSTRUCTION FOR ELEMENTARY LEVEL EDUCABLE MENTALLY RETARDED CHILDREN (OEG 32-42-1700-1010); Goldstein, Herbert, Yeshiva University, New York, N.Y.; 6/1/64-8/31/67 (Renewal); $15,338. (OE)

This research proposes to demonstrate and evaluate the effectiveness of an experimentally developed curriculum and teaching method for educable retarded children. Teachers in existing typical classes will be instructed in the nature and use of the curriculum and teaching method and will activate these in their classes under the supervision of project personnel.

1370. A FOLLOW-UP AND COMPARISON OF GRADUATES FROM TWO TYPES OF HIGH SCHOOL PROGRAMS FOR THE MENTALLY HANDICAPPED (OEG-3-7-068680-0106); Skodak, Marie, Dearborn Public Schools, Dearborn, Michigan; 8/5/66-6/30/67 (Initial); $7,450. (OE)

This research proposes to determine whether difference exist between the post-school adjustment of graduates from two different kinds of high school programs for mentally handicapped youth.

1371. AN EXPERIMENTAL STUDY USING COMPRESSED SPEECH WITH EDUCATIONALLY RETARDED STUDENTS (OEG-2-7-078195-4490); University of Colorado, Boulder, Colorado; 4/10/67-12/10/67 (Renewal); $8,336. (OE)

(No abstract supplied)

1372. AN INVESTIGATION OF SELECTED VARIABLES IN THE TEACHING OF SPECIFIED OBJECTIVES TO MENTALLY RETARDED STUDENTS (OEG-4-7-062523-0403); Fargo, George A., University of Hawaii, Honolulu, Hawaii; 11/2/66-9/25/67 (Initial); $50,090. (OE)

This research proposes to study the teacher-student interaction within the teaching-learning process with the aid of video tape recorders. By systematically changing various elements and combinations of elements (teachers, pupils, methods, and materials) the extent to which each element and combination thereof contribute to the success or failure of the student will be determined.

1373. AN OPERANT CONDITIONING STUDY OF PHYSICAL, SOCIAL AND EMOTIONAL BEHAVIOR NECESSARY FOR THE CLASSROOM ADMISSION AND RETENTION OF MENTALLY RETARDED CHILDREN (OEG-32-12-7020-5031); Myerson, Lee, Valley of the Sun School for Retarded Children, Phoenix, Arizona; 6/4/65-6/30/68 (Renewal); $46,742 (OE)

This research proposes to study the range and frequency of physical, social, and emotional behaviors in institutionalized, mentally retarded children which impede or prevent learning from taking place, and to develop operant conditioning which can be used to change undesirable behavior.

1374. A PILOT PROJECT IN CURRICULUM DEVELOPMENT FOR WORK, EXPERIENCE AND OCCUPATIONS FOR EDUCABLE MENTALLY RETARDED CHILDREN (BR-50163); Groelle, Marvin C., Oakland Unified School District, Oakland, California; 8/1/66-7/31/67 (Renewal); $4,651. (OE)

This research aims to develop curriculum and instructional materials for a "work experience and occupations" course for educable mentally retarded students to assist them in developing vocational skills and attitudes necessary to obtain and retain jobs.

1375. A STUDY OF THE EFFECTS OF AN INTENSIVE TRAINING PROGRAM ON THE MOTOR SKILLS OF YOUNG EDUCABLE MENTALLY RETARDED CHILDREN (OEG-4-7-070025-1944); Ross, Sheila, Palo Alto Medical Research, Palo Alto, California; 12/30/66-12/31/67 (Initial); $17,647 (OE)

This research proposes to improve social interaction of educable mentally retarded children with their peers by means of an intentional training program in social skills set in a logical thinking framework.

1376. A STUDY OF THE EFFECTS OF THREE EXPERIMENTAL CURRICULUM UNITS ON THE SOCIAL PERCEPTION AND PRE-VOCATIONAL READINESS OF EDUCABLE MENTALLY RETARDED ADOLESCENTS (OEG-2-7-068926-2370); Clark, Gary M., George Peabody College for Teachers, Nashville, Tenn.; 11/4/66-9/18/67 (Initial); $5,445. (OE)

This research concerns the application of validity criteria to an experimental unit of perceptual training for social behavior. Approximately 45 educable mentally retarded youths in special education classes will be selected and randomly assigned to 1 of 3 experimental treatments.

1377. CLASS SIZE AND TEACHER AIDES AS FACTORS IN THE ACHIEVEMENT OF THE EDUCABLE MENTALLY RETARDED (OEG-3-6-062620-1879); Blessing, Kenneth R., Wisconsin State Department of Public Instruction, Madison, Wisc.; 6/15/66-6/14/68 (Renewal); $86,017. (OE)

This research proposes to resolve, in part, the manpower problem in special education while maintaining or improving the professional potentiality of presently available special teaching personnel. Three volunteer teachers of EMR classes in the Milwaukee school system will be assigned on a random basis to each of the 8 cells of a 2-cubed complete factorial design.

1378. COGNITIVE TRAINING WITH RETARDED CHILDREN -III (BR 7-0755); Corter, Harold M., North Carolina State University, Raleigh, N.C.; 6/1/67-6/30/68 (Initial); $113,955. (OE)

This research proposes to determine the effectiveness of flexibility-rigidity and productivity-responsiveness training with retarded children; to develop the previously tested similarities-differences concept formation program to a functional level; and to develop new programs for testing and cognitive training in areas of judgment and discrimination, perceptual training, deutero learning, and creativity and originality.

1379. COMPARISON OF SUCCESSIVE DISCRIMINATION REVERSAL PERFORMANCE ACROSS DIFFERENT LEVELS OF MENTAL RETARDATION (OEG-1-7-068867-2209); Gossette, Robert L., Hofstra University, Hempstead, New York; 11/1/66-10/31/67 (Initial); $8,653. (OE)

This research focuses upon a systematic examination of successive discrimination reversal performance for subjects with varying levels of retardation.

1380. CURIOSITY BEHAVIOR IN EDUCABLE MENTALLY RETARDED ADOLESCENTS: CHARACTERISTICS, MODIFIABILITY, AND CONSEQUENCES OF TRAINING (OEG-1-6-061378-0584); Miller, Martin B., Yeshiva University, New York, N.Y.; 3/1/67-2/28/68. (Renewal); $27,403. (OE)

This research concerns examination for characteristics of curiosity motivation in educable mentally retarded adolescents, establishment of correlates of individual differences in curiosity behavior among retarded learners, training for increased orientation towards complex and unfamiliar stimulus qualities among non-curious educable mentally retarded subjects, and study of the effects of perceptual curiosity training.

1381. DEMONSTRATION OF DISSEMINATION PRACTICES ON SPECIAL CLASS INSTRUCTION FOR THE MENTALLY RETARDED: UTILIZING MASTER TEACHERS AS IN-SERVICE EDUCATORS (OEG-3-7-062883-0499); Carr, Donald and Meyen, Edward, University of Iowa, Des Moines, Iowa; 11/1/66-10/31/67 (Initial); $81,542. (OE)

This research proposes to demonstrate that a statewide coordinated inservice education program using master teachers can be effective in the improvement of programs for educable mentally retarded children; to disseminate material and information on instructional methods to special class teachers; and to bridge the gap between researcher and classroom teacher.

1382. EFFICACY OF SEVERAL APPROACHES FOR TEACHING READING TO THE EDUCABLE MENTALLY RETARDED (OEG-32-52-0120-1022); Woodcock, Richard W., George Peabody College for Teachers, Nashville, Tenn.; 6/1/64-11/31/67 (Renewal); $18,163. (OE)

This research concerns the reading instruction program for educable mentally retarded who will develop skill in reading to a point where, as an adult, reading can be used functionally at home and at work.

1383. ESTABLISHMENT OF APPROPRIATE USE OF PRONOUNS AND PREPOSITIONS IN SCHIZOPHRENIC AND RETARDED CHILDREN (OEG-4-6-06118-0614); Lovaas, O.Ivar, University of California, Los Angeles, Calif.; 3/16/66-3/16/68 (Renewal); $42,762. (OE)

This research proposes to investigate the conditions under which handicapped children can learn the correct use of and response to prepositions and pronouns; emphasis will be on speech useful in the child's day-to-day functioning.

1384. FACTORS INFLUENCING LEARNING AND PROBLEM SOLVING BEHAVIOR IN THE MENTALLY RETARDED (5-0653); Jensen, Kai, University of Wisconsin, Madison, Wisc.; 7/1/66-8/31/66 (Renewal); $3,078. (OE)

(No abstract supplied)

1385. FACTORS IN THE EFFECTIVENESS OF ARTICULATION THERAPY WITH EDUCABLE RETARDED CHILDREN (OEG-1-7-070342-3544); Montgomery County Superintendent of Schools, Norristown, Pa.; 4/1/67-5/31/69 (Initial); $31,485 (OE)

(No abstract supplied)

1386. INFLUENCES OF AN ADVANCE ORGANIZER ON THE VERBAL LEARNING AND RETENTION OF EDUCABLE MENTALLY RETARDATES (OEG-1-6-062122-1570); Netsworth, John, and Smith, Robert; University of Delaware, Newark, Del.; 6/1/66-5/31/67 (Renewal); $33,368. (OE)

This research proposes to investigate and evaluate the influence of an "advance organizer" on the learning and retention of

meaningful verbal material by educable mental retardates. (An advance organizer is a brief expository, introductory statement that precedes a subsequent detailed learning passage.)

1387. INTEGRATION OF STIMULUS CUES BY NORMAL AND MENTALLY RETARDED (5-1032); Elam, Claude B., Texas Christian University, Fort Worth, Tex.; 7/1/66-9/30/66 (Renewal); $9,022. (OE)

(No abstract supplied)

1388. INTERVENTION IN THE COGNITIVE DEVELOPMENT OF THE CULTURALLY DEPRIVED AND FUNCTIONALLY RETARDED NEGRO PRESCHOOL CHILD (BR-5-0328); Weikart, David P., Michigan State Department of Public Instruction, Lansing, Michigan; 7/1/66-6/30/67 (Renewal); $31,488 (OE)

This research proposes to assess a 2-year cognitively-oriented school-and home-based preschool program with respect to its effectiveness in development of intellectual qualities of culturally deprived, functionally retarded Negro children.

1389. LINGUISTIC ANALYSIS OF VERBAL INTERACTIONS IN SPECIAL CLASSES FOR THE MENTALLY RETARDED (OEG-3-7-070130-1609); Hurley, Oliver L., University of Illinois, Urbana, Ill.; 2/1/67-6/30/67 (Initial); $5,395. (OE)

This research proposes, in phase 1, to develop a reliable method of analysis and comparison of classroom interaction in terms of language codes and, in phase 2, to determine the relationships between teacher language codes and pupil language codes.

1390. RELATIONSHIP BETWEEN THE TRAINING, EXPERIENCE AND SELECTED PERSONALITY CHARACTERISTICS OF TEACHERS AND THE PROGRESS OF TRAINABLE MENTALLY HANDICAPPED CHILDREN (5-1051); Semmel, M., Michigan State Department of Public Instruction, Lansing, Mich.; 7/1/66-6/30/67 (Renewal); $20,090. (OE)

This research proposes to explore the relationship between the professional qualifications, experiences, and selected personality characteristics of teachers to the progress of the trainable mentally handicapped children. The growth of approximately 600 trainable mentally handicapped children in about 60 classrooms will be observed and recorded over a 3-year period.

1391. RESEARCH IN REMEDIAL GUIDANCE OF YOUNG RETARDED CHILDREN WITH BEHAVIOR PROBLEMS WHICH INTERFERE WITH ACADEMIC LEARNING AND ADJUSTMENT. (OEG-32-23-1020-6002); Bijou, Sidney W., University of Illinois, Urbana, Ill.; 10/1/65-6/30/68 (Renewal); $59,497. (OE)

This research aims to analyze the importance of social consequences of severe problem behaviors in a nursery school situation; to refine the techniques for modification of socially unacceptable behavior problems; and to evaluate the effects of the child's behavior at home after the parents have been trained by the teachers in handling the problem.

1392. SENSORY-PERCEPTUAL LANGUAGE TRAINING TO PREVENT SCHOOL LEARNING DISABILITIES IN CULTURALLY DEPRIVED PRESCHOOL CHILDREN (OEG-32-52-7900-5025); McConnell, Freeman, The Bill Wilkerson Hearing and Speech Center, Nashville, Tenn.; 6/1/65-5/31/68 (Renewal); $55,142. (OE)

This research focuses upon an organized, structured, and intensive perceptual and language stimulation program for preschool children

directed at the prevention of learning problems in school, the failure to achieve, and the subsequent school dropout.

1393. SPECIAL EDUCATION INSTRUCTIONAL MATERIALS CENTER (OEG-32-14-1490-1033); Reid, William R., University of Southern California, Los Angeles, Calif.; 6/1/64-8/31/69 (Renewal); $190,763. (OE)

This research concerns the development of instructional materials and methods relating specifically to the education and training of the mentally-retarded individual.

1394. STUDYING LEARNING PATTERNS OF MENTAL RETARDATES (5-0323); Candland, Douglas K., Bucknell University, Lewisburg, Pa.; 7/1/66-6/30/67 (Renewal); $13,272. (OE)

This research proposes to ascertain what constitutes appropriate reinforcement and temporal schedules of conditioning for retardates in learning situations.

1395. THE DEVELOPMENT OF A PHYSICAL EDUCATION PROGRAM FOR TRAINABLE MENTALLY RETARDED CHILDREN AND YOUNG ADULTS (OEG-2-7-06864-0272); Pigman, Alice, Opportunity Center School Aid for Retarded Children Association, Inc., Birmingham, Alabama; 9/13/66-7/1/67 (Initial); $6,856. (OE)

This research proposes to plan a program and program materials to meet specific needs for social adjustment and motor ability development. Mentally retarded persons (ages 6-30) will participate; a devised motor ability test will be administered.

1396. THE DEVELOPMENT OF THE SOCIAL CONCEPT "GROUP" AMONG MENTALLY RETARDED CHILDREN (OEG-4-7-078020-2091); Taylor, Lloyd, Phillips University, Enid, Oklahoma; 11/1/66-5/1/68 (Initial); $5,000. (OE)

This research concerns an exploratory study using approximately 120 mentally retarded and normal youths to determine their concept and understanding of group activity. The all male subjects will be drawn from family and institutional settings.

1397. THE EFFECT OF SPECIAL CLASS PLACEMENT ON THE SELF-CONCEPT OF ABILITY OF THE EDUCABLE MENTALLY RETARDED CHILD (OEG-3-7-700052-3099; Michigan State University, East Lansing, Mich.; 3/9/67-12/31/67 (Initial); $9,008. (OE)

(No abstract supplied)

1398. THE RELATIONSHIPS BETWEEN INTENTIONAL LEARNING, INCIDENTAL LEARNING AND TYPE OF REWARD IN PRESCHOOL EDUCABLE MENTAL RETARDATES (OEG-4-6-068144-1777); Ross, Dorothea M., Stanford University, Stanford, Calif.; 2/1/66-12/31/66 (Renewal); $3,998. (OE)

This research proposes to assess the effect of different rewards for intentional learning on incidental learning in preschool educable mental retardates.

1399. THE RELATIVE EFFECTIVENESS OF CLASSROOM TEACHERS AND PROGRAMMED INSTRUCTION IN TEACHING SELECTED ARITHMETIC CONCEPTS: A PILOT STUDY (OEG-32-42-6165-5005); Board of Education, Albany; 2/1/67-8/31/67 (Renewal); $24,415 (OE)

(No abstract supplied)

1400. THE USE OF PROGRAMMED LANGUAGE TRAINING AS A MEANS FOR DIFFERENTIAL DIAGNOSIS AND EDUCATIONAL REMEDIATION AMONG SEVERELY RETARDED CHILDREN (OEG-2-7-070218-1639); George Peabody College for Teachers

Nashville, Tenn.; 1/2/67-12/31/67 (Initial); $41,508 (OE)

(No abstract supplied)

1401. THE VOCATIONAL DEVELOPMENT OF MENTALLY RETARDED ADOLESCENTS: A LONGITUDINAL AND EXPERIMENTAL STUDY (OEG-32-32-0410-5018); Shulman, Lee S., Michigan State University, East Lansing, Michigan; 6/1/65-6/30/67 (Renewal); $6,975. (OE)

This research proposes to complete a study of 14-year-old mental retardates on vocational development, the effects of rehabilitation, and identification of variables for successful functioning as adults. Rehabilitation effect variables to be studied are self-concept, behavior in simulated work, intelligence changes, aspiration and social behavior.

1402. TIME PERSPECTIVE CHANGE IN INSTITUTIONALIZED MENTAL RETARDATES UNDER CONDITIONS OF SOCIAL OR TOKEN REINFORCEMENT (OEG-3-7-068918-1942); State Hospital #2, Division of Mental Disease, St. Joseph, Missouri; 1/1/67-9/30/67 (Initial); $7,640. (OE)

(No abstract supplied)

1403. TYPE OF SOLUTION IN THE PROBLEM SOLVING BEHAVIOR OF NORMAL AND MENTALLY-RETARDED CHILDREN (7-8030); Dickerson, Donald J., University of Connecticut, Storrs, Conn.; 11/1/67-10/31/68 (Initial); $6,950 (OE)

This research focuses on stimulus factors affecting type of solution and developmental trends in type of solution. The experimental design is that of 2-choice, visual collor-form patterns presented by a manually operated discriminative-learning apparatus.

Amelioration - Vocational Rehabilitation

1404. A COMMUNITY ADJUSTMENT PROGRAM FOR SHELTERED CARE (MH-2538-01); O'Bear, Harry, Lincoln State School, Lincoln, Illinois; 1/67 (Initial); $38,200 (NIMH)

This project proposes to improve cottage center training programs for 472 severely retarded, emotionally stable, adult mentally retarded individuals on four cottages. The project aims to improve social training and develop self-help skills, acceptable personal habits, social graces, communication skills, etc. necessary to adjust to community life.

1405. A HABILITATION PROGRAM FOR THE SEVERELY RETARDED (MH-1825-03); Bugh, Vernon G., Pacific State Hospital, Pomona, Calif.; 1/67 (Renewal); $97,836. (NIMH)

This project attempts to develop and refine techniques that will help profoundly retarded children, residing in an institution, acquire more effective skills of daily living. Examples of these skills are eating, dressing, toilet training, grooming and socialization.

1406. AN IMPROVED PROGRAM FOR HABILITATION OF THE RETARDED (MH-2179-03); Bowser, Lawrence P., Belchertown State School, Belchertown, Mass.; 1/67 (Renewal); $84,870. (NIMH)

This research proposes to provide the retarded individual an opportunity to explore, to test himself, to grow and be a full person by means of a program of habilitation in areas of physical education, language, and physical therapy.

1407. AN INSTITUTION PROGRAM FOR THE DEFECTIVE DELINQUENT (MH-1902-02); Callierate, Dominic L., Fairview Hospital and Training Center, Salem, Oregon; 6/66 (Renewal); $11,037 (NIMH)

This research concerns the development and evaluation of a program for behavioral modification of mentally retarded delinquent patients in a residential institution for the retarded. The treatment program included group and individual counseling, an organized program of individual allotment of privileges and responsibilities, psychodrama, vocational instruction, counseling, work therapy and community placement follow-up.

1408. COORDINATED PROGRAM OF DVR AND PUBLIC SCHOOLS FOR MENTALLY RETARDED (RD-2068-D); Songer, David O., Department of Vocational Rehabilitation, Washington, D.C.; 11/1/66-10/31/67 (Renewal); $48,136 (SRS)

This research proposes to establish within Eastern High School a special cooperative rehabilitation effort designed to provide a more concentrated school program with holding power and more adequate vocational preparation by students in the low-range of mental ability or sub-average intelligence functioning who are placed in the lowest academic track.

1409. HABILITATION OF DISTURBED ADOLESCENT MALE RETARDATES (MH-2178-02); Shelton, James T., Porterville State Hospital, Porterville, Calif.; 6/67 (Renewal); $83,330. (NIMH)

This research focuses upon provision of an intensive treatment program in a State hospital for emotionally disturbed adolescent male retardates. A highly organized closed environment in which as much behavior as possible may be programmed to yield immediate consequences for the patient will be created.

1410. HABILITATION PROGRAM FOR MALE RETARDATES (MH-2071-03); Russell, Francis W., State Colony at New Lisbon, New Lisbon, New Jersey; 6/67 (Renewal); $98,250. (NIMH)

This research proposes a 10-year project to explore the effectiveness of present knowledge and techniques in habilitating reasonably stable, moderately and mildly retarded institutionalized individuals for eventual community living.

1411. HABILITATIVE PLANNING SEVERE TO MODERATE RETARDATES (MH-1677-03); Zier, Merlin W., State Home and Training School, Wheat Ridge, Colorado; 3/67 (Renewal); $99,520. (NIMH)

This research proposes to increase the enrollment in HIP in the 03 year to 247 residents. Gains in skills are: motor, 6.6%; self-help, 8.3%; social, 8.5%; and perceptual-conceptual areas, 19.9%. Coordination of HIP, ESEA, and Ridge School programming will increase benefits to residents in classroom, vocational, social and living areas.

1412. HIP: PRE-VOCATIONAL TRAINING (MH-2026-03); Nagler, Benedict, Lynchburg Training School and Hospital, Colony, Virginia; 2/67 (Renewal); $14,605. (NIMH)

This research proposes to expand and improve pre-vocational training programs for mentally retarded adolescents in an institutional setting. Emphasis is placed on allowing each individual trainee to progress at his own rate in any number of training areas.

1413. HIP:RECREATIONAL DEPARTMENT (MH-2025-03); Nagler, Benedict, Lynchburg Training School and Hospital, Colony, Virginia; 2/66 (Renewal); $28,158 (NIMH)

This research proposes to coordinate all the recreational activities at the hospital, strengthen the remotivation program, and add additional night and weekend activities.

1414. HOME LIVING TRAINING PROGRAM GOAL, HABILITATION (MH-1958-02); Marks, John R., Idaho State School and Hospital, Manpa, Idaho; 2/67 (Renewal); $85,702 (NIMH)

This research proposes to determine the most efficient method of placing mentally retarded individuals in a community, primarily in a vocational setting. Roles of professional disciplines and resources required at the community level for placement success will also be determined.

1415. IMPROVED USE OF INSTITUTIONAL AND COMMUNITY RESOURCES (MH-1667-03); Edelson, David, Dixon State School, Dixon, Illinois; 2/67 (Renewal); $100,000 (NIMH)

This research proposes to evaluate psychiatrically and medically 2200 highly institutionalized retardates whose age range is 40 or over. Necessary training to adapt from institutional to community living will be provided for selected patients.

1416. IMPROVEMENTS IN INDEPENDENT LIVING (MH-1700-03); Henderson, C.M., Owatonna State School, Owatonna, Minnesota; 2/67 (Renewal); $59,307 (NIMH)

This research proposes to expand special living facilities within an institution for educable retarded children in an attempt to create a living situation that more closely approximates that which a student might expect to encounter upon leaving the institution.

1417 INTENSIVE HABILITATION AND MOTIVATION PROGRAM (MH-2079-02); Bonafede, Vincent I., Craig Colony School and Hospital, Sonyea, New York; 6/67 (Renewql); $98,054 (NIMH)

This research proposes an intensive, developmental plan to realize the full potentials of 40 mentally retarded epileptic boys and girls, ages 5 to 10 years, with I.Q.'s ranging from 0.28 to 0.42. The plan is to give each child the loving care and upbringing of as near normal home life that is possible in an institutional environment.

1418. INTENSIVE HABILITATION OF SEVERELY RETARDED CHILDREN (MH-2061-03); Williams, T. Glyne, Rosewood State Training School, Owings Mills, Maryland; 6/67 (Renewal); $46,636. (NIMH)

This research presents a highly organized and detailed basic habit training and teaching program designed to improve the physical and mental status of a large group of severely retarded males between the ages of 8 and 16, who have had little opportunity to evidence improvement in their daily living status.

1419. INTENSIVE HABIT TRAINING OF SEVERELY RETARDED ADULTS (MH-2444-02); Peterson, Harold W., Brainerd State School and Hospital, Brainerd, Minn.; 6/67 (Renewal); $93,634 (NIMH)

This research involves the rotation of institutionalized severely and profoundly retarded ambulatory adults through an intensive habit training session which will use the techniques of learning and operant conditioning to modify behavior and improve self-care skills; 36 residents will be under training at a time.

1420. INTENSIVE PROGRAM FOR COMMUNITY PLACEMENT (MH-2051-03); Fukumae, Clarence K., Waimano Training School and Hospital, Pearl City, Hawaii; 5/67 (Renewal); $33,842 (NIMH)

This project is a program of intensive preparation for community placement for 41 mentally retarded male residents.

1421. PHYSICAL HABILITATION FOR THE SEVERELY RETARDED (MH-2536-01); Rosen, David, Woodbridge State School, Woodbridge, New Jersey; 1/67 (Initial); $93,896 (NIMH)

This research proposes to show that it is possible to reduce or eliminate simultaneously those factors which limit the potential development of many physically handicapped, severely retarded residents. This will be achieved through therapy provided by a psychiatrist, physical therapist, occupational therapist and physical therapy aides.

1422. PREPARATION FOR INDEPENDENT LIFE (MH-2393-02); Albaum, Joseph, Lincoln State School, Lincoln, Illinois; 5/67 (Renewal); $32,625 (NIMH)

This research proposes a plan whereby this large institution may begin a transition to a unit organization in which a new quality of cottage life personnel may be introduced; the goal will be final preparation for independent community living.

1423. PRE-VOCATIONAL EXPLORATION IN COMMUNITY LIVING (MH-2267-02); Maculans, Edgar M., Henryton State Hospital, Henryton, Maryland; 1/67 (Renewal); $90,687 (NIMH)

This research proposes to work with 48 of 400 residents to demonstrate the increased effectiveness of skill and habit developments through concentrated training.

1424. PROMOTING COMMUNITY LIVING WITH RECREATION ACTIVITIES (MH-2249-02); Greenberg, Charles, Rome State School, Rome, New York; 2/67 (Renewal); $61,826 (NIMH)

This research proposes to promote the adjustment of the mentally retarded patient in the community by fostering the development of a variety of skills related to constructive use of leisure time.

1425. STAFF BEHAVIORS AND MENTAL RETARDATE REHABILITATION (MH-8855-03); Nichols, Daryl G., American Institutes for Research, Pittsburgh, Pa.; 11/66 (Renewal); $36,553 (NIMH)

This research proposes to determine those behaviors on the part of staff members in institutions for the mentally retarded which are effective in enabling retarded patients to become rehabilitated, and to use these behavioral incidents in selection and training devices for hospital staff.

1426. SELF-CARE DEVELOPMENT AND VOCATIONAL HABILITATION (MH-2446-02); Murray, William E., New Castle State Hospital, New Castle, Indiana; 6/67 (Renewal); $98,265 (NIMH)

This research presents, for patients with neurological disorders with and without mental retardation, a plan including a sequence of vocational, academic, and social skills training assignments. In time the patients are expected to meet community standards in appearance, productivity, use of earnings, communication skills, social behavior and self-reliance.

1427. TERMINAL EMPLOYMENT IN A RESIDENTIAL SHELTERED WORKSHOP (MH-2551-01) Mulcahy, Raymond M., Brandon Training School, Brandon, Vermont; 6/67 (Initial); $38,659 (NIMH)

This project proposes to operate on a subcontract basis in which selected jobs will be obtained from various industries. The workshop will accommodate approximately 50 severely retarded male and female adults who will be paid according to individual productivity. There will be compliance to all federal and state safety and health standards.

1428. THE REHABILITATION OF DELINQUENT RETARDATES (MH-2270-02); Elliott, James F., Murdoch Center, Butner, North Carolina; 2/67 (Renewal); $50,214 (NIMH)

This research involves an experimental, residential program for 20 mildly retarded delinquent adolescents. A standardized program has been developed for teaching practical skills essential for community readjustment.

1429. TRAINING NON-PROFESSIONAL COMMUNITY PROJECT LEADERS (MH-1382-04); Madore, C. Elizabeth, Dona Ana Mental Health Services, Las Cruces, New Mexico; 10/66 (Renewal); $97,324 (NIMH)

This research proposes to explore the effectiveness of a special method of selecting, assigning, training and giving consultation to non-professional mental health workers as they and the community develop specific mental health services.

1430. AN AREA-WIDE EDUCATIONAL VOCATIONAL PREPARATION AND PLACEMENT PROGRAM FOR HIGH SCHOOL EDUCABLE MENTALLY RETARDED STUDENTS OF MUSKEGON COUNTY, MICHIGAN: A TOTAL COMMUNITY APPROACH (OEG-32-32-11310-5019); Adar, Normand, Muskegon Area Intermediate School District, Muskegon, Mich.; 9/1/66-8/31/67 (Renewal); $65,634 (OE)

This research proposes to develop a 4-year program for 250 students with emphasis on social adjustment and will consist of life-oriented academic preparation, job-oriented personal and work skills education, job evaluation, counseling with pupils and parents, on-the-job training, job placement, and vocational follow-up.

1431. THE APPLICATION FOR EMPLOYMENT AND FOR SEEKING SUCCESS AMONG EDUCABLE MENTALLY RETARDED YOUTH (BR-6-8576); Gregory, Robert J., Syracuse University, Syracuse, New York; 9/1/66-8/31/67 (Initial); $4,488. (OE)

This research proposes to investigate the effects of instruction on techniques to completing applications for employment and on actual performance on job-seeking behavior by educable mentally retarded.

1432. A COOPERATIVE DEMONSTRATION WORK EXPERIENCE FOR MENTALLY RETARDED ADOLESCENTS (RD-1830-G-D); Stone, Shelly C., Crossroads Rehabilitation Center, Indianapolis, Indiana; 7/1/66-6/30/67 (Renewal); $37,778 (SRS)

This research involves cooperative special education and parallel work experience to prepare mentally retarded adolescents for

community employment. It will demonstrate how coordinated efforts among Crossroads Rehabilitation Center, the public school system, and State Vocational Rehabilitation Division can assist students in making a successful transition from school to employment.

1433. A COORDINATED PROGRAM OF VOCATIONAL REHABILITATION AND SPECIAL EDUCATION SERVICES FOR MENTALLY RETARDED YOUTH (RD-1931-P-D); Grammaticas, Chris, West Springfield Public Schools, West Springfield, Mass.; 7/1/66-6/30/67 (Renewal); $35,550 (SRS)

This research concerns the establishment of an organized program of selection, evaluation, guidance, and training of educable mentally retarded youth toward enabling them to obtain employment.

1434. A PROGRAM FOR INSTITUTIONALIZED MENTALLY RETARDED ADULTS (RD-1699-G); Moore, James C., Division of Vocational Rehabilitation, Little Rock, Ark.; 2/1/67-1/31/68 (Renewal); $110,000 (SRS)

This research proposes to establish and operate a specialized rehabilitation unit at a state operated institution for the purpose of vocationally rehabilitating older mentally retarded adults who are inmates of the institution.

1435. A STRUCTURED COMMUNITY APPROACH TO COMPLETE SERVICES FOR THE RETARDED (RD-1331-G); Dollins, Curtis N., Jewish Vocational Service, Milwaukee, Wisconsin; 3/1/67-2/29/68 (Renewal); $100,000 (SRS)

This research proposes to demonstrate a complete community structure of services and an organized total community approach which can affect the achievement of maximum potential for developmental training and vocational rehabilitation for retarded children and adults in Milwaukee County. The project involves the concept of a"continuum of care" and a "fixed point of referral."

1436. A TRANSITIONAL PROGRAM FOR INSTITUTIONALIZED ADULT RETARDED (RD-1275-P); Clark, Gerald R., Elwyn School, Elwyn, Pennsylvania; 4/1/67-3/31/68 (Renewal); $49,000 (SRS)

This research proposes to demonstrate that through a coordinated and unified multiphase habilitation program, an institution for the mentally retarded can successfully prepare many of its residents for independent community living. The proposal will be concerned with developing, coordinating and adapting institutional services so as to provide a smooth transitional program to the community for adult retarded individuals.

1437. A WORK EXPERIENCE PROGRAM FOR THE MENTALLY RETARDED CHILD WHO HAS REACHED AGE SIXTEEN YEARS (RD-1762); Warner, Don, Omaha Public Schools, Omaha, Nebraska; 9/1/66-8/31/67 (Renewal); $47,079 (SRS)

This research proposes an organized, coordinated program of activities between the school and the sheltered work shop which will provide a concurrent educational-vocational experience designed to provide those emotional, social, and vocational experiences that are critical in the optimal habilitation of the retardate.

1438. A WORK EXPERIENCE PROGRAM FOR THE MENTALLY RETARDED IN THEIR LAST YEAR OF SCHOOL (RD-2058-G-D); Campbell, John L., Vocational Guidance and Rehabilitation Services, Cleveland, Ohio; 9/1/66-8/31/67 (Renewal); $30,003 (SRS)

This research concerns the provision of a half-day work experience program for 50 mentally retarded adolescents who are within 1 year of completion of their school program.

1439. A WORK EXPERIENCE PROGRAM FOR THE MENTALLY RETARDED IN THEIR LAST YEAR OF SCHOOL (RD-1736-D); Grate, Don A., Goodwill Industries, Portland, Oregon; 12/1/66-11/30/67 (Renewal); $42,914 (SRS)

This research proposes to demonstrate the effectiveness of a coordinated program of community services geared to helping the mentally retarded high school student to make a successful tansition from school to employment through the coordination of the programs of the public school's special education department, a sheltered workshop, and the state rehabilitation agency.

1440. A WORK EXPERIENCE PROGRAM FOR RETARDED STUDENTS IN THEIR LAST YEAR OF SCHOOL (RD-1759-D); Chandler, J. Philip, Association for Retarded Children, Inc., Portland, Maine; 12/1/66-11/30/67 (Renewal); $22,780 (SRS)

This research proposes to demonstrate how coordinated services between the Portland secondary program for the mentally retarded, the Maine Division of Vocational Rehabilitation and a work adjustment center can help retarded students to make a successful transition from school to employment.

1441. COMMUNITY ORGANIZATION ACTION PLAN FOR THE MENTALLY RETARDED (RD-1929-G) Kunitz, Eleanor, Coordinating Council on Mental Retardation, San Francisco, California; 11/1/66-10/31/67 (Renewal); $90,949 (SRS)

This research proposes to initiate action on needed services; to increase utilization of all services; and to provide channels for effective coordination of the development of new and expanded programs to insure the wisest use of money and man-power for maximum service.

1442. COMPREHENSIVE COMMUNITY-BASED SERVICES FOR THE RETARDED (RD-1435-G); Mezoff, Maurice, Parents and Friends of Mentally Retarded Children of Bridgeport, Inc., Bridgeport, Connecticut; 11/1/66-10/31/67 (Renewal); $90,000 (SRS)

This research proposes to develop a model of comprehensive services based on the resources of the community and to show that such community-based services are the logical and most effective way of serving the changing needs of the individual retardate.

1443. COORDINATED PROGRAM OF SPECIAL EDUCATION AND VOCATIONAL REHABILITATION SERVICES FOR THE MENTALLY RETARDED (RD-1649-D); Truesdale, Sarah, Richland County Schools, Columbia, South Carolina; 7/1/66-6/30/67 (Renewal); $30,000 (SRS)

This research proposes to identify and to serve the mentally retarded adolescents who show a potential for successful vocational rehabilitation. It is designed also to reduce the number of school drop-outs among the mentally retarded in Columbia. The program will provide professional and technical services that will carry out a comprehensive program in many areas.

1444. COORDINATED PROGRAM OF SPECIAL EDUCATION AND VOCATIONAL REHABILITATION SERVICES FOR THE MENTALLY RETARDED (RD-1631-D); Hoffbeck, R.C., Division of Vocational Rehabilitation, Pierre, South Dakota; 7/1/66-6/30/67 (Renewal); $34,336 (SRS)

This research concerns the provision of necessary personal, social, psychological, medical, vocational, and related services for the purpose of the habilitation of selected resident and non-resident retarded subjects who can reasonably be expected, as a result of the services rendered, to be fit to engage in remunerative occupations.

1445. COORDINATED PROGRAM OF SPECIAL EDUCATION AND VOCATIONAL REHABILITATION SERVICES FOR THE MENTALLY RETARDED (RD-1668-D); Markham, C. Leslie, Chattanooga Public Schools, Chattanooga, Tenn.; 7/1/66-6/30/67 (Renewal); $35,278 (SRS)

This research proposes to demonstrate a method of applying our acquired knowledge on the habilitation of the mentally retarded by means of coordinating services which are available in the community to provide a program of vocational education, occupational training and job placement for the mentally retarded.

1446. COORDINATED PROGRAM OF SPECIAL EDUCATION AND VOCATIONAL REHABILITATION SERVICES FOR THE MENTALLY RETARDED (RD-1656-D); Anderson, Carl G., Division of Vocational Rehabilitation, Charleston, West Virginia; 12/1/66-11/30/67 (Renewal); $48,000 (SRS)

This research concerns a 3-year demonstration project involving the establishment of a coordinated program of services in Logan County. It will demonstrate the effectiveness of a coordinated, organized effort by Special Education and Vocational Rehabilitation to assist mentally retarded youths to make an optimal adjustment to employment and community living.

1447. COORDINATED PROGRAM OF SPECIAL EDUCATION AND VOCATIONAL REHABILITATION SERVICES FOR THE MENTALLY RETARDED (RD-1665-D); Jeffries, H. Bruce, Division of Vocational Rehabilitation, Charleston, West Virginia; 1/1/67-12/31/67 (Renewal); $42,486 (SRS)

This research concerns a 3-year demonstration project involving the establishment of a coordinated program of services in Logan County. It will demonstrate the effectiveness of a coordinated, organized effort by Special Education and Vocational Rehabilitation to assist mentally retarded youths to make an optimal adjustment to employment and community living.

1448. COORDINATED PROGRAM OF VOCATIONAL REHABILITATION AND SPECIAL EDUCATION SERVICES FOR THE MENTALLY RETARDED (RD-1676-D); Bartlett, Richard H., Services for Exceptional Children, Atlanta, Georgia; 11/1/66-9/30/67 (Renewal); $34,903 (SRS)

This research concerns a prototype project designed to investigate the effectiveness of intensive special education and vocational rehabilitation services offered through a team approach upon the secondary school age mentally retarded individuals.

1449. COORDINATED PROGRAM FOR VOCATIONAL REHABILITATION AND SPECIAL EDUCATION SERVICES FOR THE MENTALLY RETARDED (RD-1761); Allen, Virgil, Pocatello School District, Pocatello. Idaho; 11/1/66-10/31/67 (Renewal); $20,425 (SRS)

This research proposes to establish and test the effectiveness of a prevocationally oriented training program to be developed in secondary special classes for mentally retarded students and to develop, demonstrate, and evaluate a prevocational program for educable mentally retarded students in the secondary school, integrating the resources of the school and community.

1450. COORDINATED PROGRAM OF VOCATIONAL REHABILITATION AND SPECIAL EDUCATION FOR THE MENTALLY RETARDED (RD-1509-D); Hamrick, William J., Vigo County School Corporation, Terre Haute, Indiana; 7/1/66-6/30/67 (Renewal); $12,979 (SRS)

This research concerns: coordination between special education school personnel, employers, Vocational Rehabilitation, and the Indiana State Employment Agency; demonstration that a retarded person can be an asset to a business if placed in the proper position; incorporation of direct vocational training for the 12- to 18-year-old retarded students; placement of selected pupils in approving businesses while under school jurisdiction.

1451. COORDINATED PROGRAM OF VOCATIONAL REHABILITATION AND SPECIAL EDUCATION FOR THE MENTALLY RETARDED (RD-1522-D); Burkart, John M., Department of Vocational Rehabilitation, Frankfort, Kentucky; 7/1/66-6/30/67 (Renewal); $24,116 (SRS)

This research concerns provision of coordinated program of services for the mentally retarded between the ages of 15 and 25 in Harlan County, Kentucky. It will be devoted to the provision of experiences and development of concepts and attitudes required in wholesome, contributing community membership.

1452. COORDINATED PROGRAM OF VOCATIONAL REHABILITATION AND SPECIAL EDUCATION FOR THE MENTALLY RETARDED (RD-1523-D); Burkart, John M., Department of Vocational Rehabilitation, Frankfort, Kentucky; 7/1/66-6/30/67 (Renewal) $30,975 (SRS)

This research concerns provision of a coordinated program of services for the mentally retarded between the ages of 15 and 25 in Rockcastle County, Kentucky. It will be devoted to the provision of experiences and development of concepts and attitudes required in wholesome, contributing community membership.

1453. COORDINATED PROGRAM OF VOCATIONAL REHABILITATION AND SPECIAL EDUCATION FOR THE MENTALLY RETARDED (RD-1524-D); Mullins, Basil T., Department of Vocational Rehabilitation, Frankfort, Kentucky; 7/1/66-6/30/67 (Renewal); $33,708 (SRS)

This research concerns provision of a coordinated program of services for the mentally retarded between the ages of 15 and 25 in Floyd County, Kentucky. It will be devoted to the provision of experiences and development of concepts and attitudes required in wholesome, contributing community membership.

1454. COORDINATED PROGRAM OF VOCATIONAL REHABILITATION AND SPECIAL EDUCATION SERVICES FOR THE MENTALLY RETARDED (RD-1743-D); Lewis, Patricia, Board of Education, East Orange, New Jersey; 9/1/66-11/30/67 (Renewal); $30,751 (SRS)

This research proposes to show that a planned, coordinated effort between the New Jersey Rehabilitation Commission and the

public school special education program can provide an appropriate and effective vocational-educational program for educable mentally retarded secondary school students.

1455. COORDINATED PROGRAM OF VOCATIONAL REHABILITATION AND SPECIAL EDUCATION SERVICES FOR THE MENTALLY RETARDED (RD-1744-D); Nolan, Jerome P., South Gloucester Regional High School, Franklinville, New Jersey; 1/1/67-12/31/67 (Renewal); $20,920 (SRS)

This research proposes to provide a coordinated effort by Special Education and the New Jersey Rehabilitation Commission to expand the current work-training program for the mentally retarded in the Southern Gloucester County Regional High School District (Delsea Regional High School)

1456. COORDINATED PROGRAM OF VOCATIONAL REHABILITATION AND SPECIAL EDUCATION SERVICES FOR THE MENTALLY RETARDED (RD-1681-D); Taylor, Edgar A.,Jr., Multanomah County Schools, Portland, Oregon; 7/1/66-6/30/67 (Renewal); $42,445 (SRS)

This research aims to improve and systematize the work evaluation, work adjustment and work experience of young people who are physically or mentally handicapped or emotionally maladjusted. This will be done through cooperation of the Portland School District, Vocational Rehabilitation and Goodwill Industries.

1457. COORDINATED PROGRAM OF VOCATIONAL REHABILITATION AND SPECIAL EDUCATION SERVICES FOR THE MENTALLY RETARDED (RD-1682-D); Perry, Harold W., Memphis City Schools, Memphis, Tennessee; 8/1/66-7/31/67 (Renewal); $40,624 (SRS)

This research concerns a cooperative study by the Division of Vocational Rehabilitation and the Memphis City Schools for demonstration of means and methods of realizing vocational rehabilitation goals through special occupational evaluation and training services for high school age educable mentally retarded youth.

1458. COORDINATION OF REHABILITATION SERVICES FOR THE RETARDED IN A LARGE METROPOLITAN AREA THROUGH LEGALLY CONSTITUTED JOINT PUBLIC AUTHORITY (RD-1853-G); Mooring, Ivy, Mental Retardation Services Board, Los Angeles, California; 8/1/66-7/31/67 (Renewal); $43,581 (SRS)

This research concerns the use of a joint public authority to stimulate cooperative planning and coordination of rehabilitation services for the retarded. It seeks to: fill a post-school "vacuum" in services to the retarded; eliminate duplication of services; increase utilization of private agencies' services; and improve communication among agencies.

1459. COORDINATION OF WORKSHOPS FOR THE MENTALLY RETARDED IN A METROPOLITAN AND SUBURBAN AREA (RD-1561-G); Exceptional Children's Foundation, Los Angeles, California; 10/1/66-9/30/67 (Renewal); $92,141 (SRS)

(No abstract supplied)

1460. DEMONSTRATION OF AN INDEPENDENT LIVING REHABILITATION SERVICES PROGRAM FOR SERIOUSLY HANDICAPPED MENTALLY RETARDED ADULTS (RD-902-P); Katz, Elias, Aid Retarded Children, Inc., San Francisco, California; 1/1/67-4/30/67 (Renewal); $2,450 (SRS)

This research proposes to demonstrate how effective independent living rehabilitation services may be provided for seriously handicapped mentally retarded adults who are presently considered

unemployable or have little prospect of becoming rehabilitated vocationally.

1461. EFFECTIVENESS OF PLACEMENT-ORIENTED WORK PROGRAM FOR MENTALLY RETARDED ADOLESCENTS AND SCHOOL DROP-OUTS (RD-1589-P); Cohen, Milton, Federation of the Handicapped, New York, N.Y.; 10/1/66-9/30/67 (Renewal); $50,000 (SRS)

This research proposes to demonstrate the value of a special work adjustment program for mentally retarded young people with a history of school drop-out and to test techniques (including remunerative work) which may contribute to the employment success of this group.

1462. EFFECTS OF DIFFERENTIAL EXPERIENCES ON RETARDED PERSONS LIVING IN RESIDENTIAL CENTERS (RD-1816-P); Klaber, Michael, University of Hartford, Hartford, Conn.; 7/1/66-6/30/67 (Renewal); $65,860 (SRS)

This research concerns a study of the possible effects on the behavior of residents that may result from differences in living conditions, services and programs of different institutions for the retarded.

1463. EMPLOYMENT OF THE MENTALLY RETARDED (RD-1036); Blackman, Leonard S., Human Resources, Long Island, New York; 3/1/67-6/30/67 (Renewal); $26,532 (SRS)

This research proposes to evaluate selection techniques in discriminating the potential effectiveness of the mentally retarded in certain jobs; to conduct job analyses directed toward work simplification to see if they can be performed by the retarded; and to determine whether modern industrial training methods can be used with the retarded.

1464. FILM--PLACEMENT OF THE HANDICAPPED (RD-1930-G); National Rehabilitation Association, Washington, D.C.; 6/1/65-5/31/67 (Renewal); $19,125 (SRS)

(No abstract supplied)

1465. FILMS FOR VOCATIONAL REHABILITATION COUNSELORS: THE MENTALLY RETARDED (RD-2245-P); Ricker, Lawrence H., MacDonald Training Center Foundation, Inc., Tampa, Florida; 7/1/66-6/30/67 (Initial); $36,105 (SRS)

This research proposes to show the social behavior of educable, mentally retarded young adults taking part in group counseling discussing, eating meals, playing games, working, and being interviewed for a job; point out and interpret individual and group dynamics in this handicapped population; and demonstrate methods and problems involved in doing group counseling with educable mentally retarded young adults.

1466. FOLLOW-UP STUDY OF MENTALLY RETARDED PERSONS PLACED WITH FEDERAL GOVERNMENT THROUGH DIVISION OF VOCATIONAL REHABILITATION CERTIFICATION (RD-2425-G); Department of Vocational Rehabilitation, Washington, D.C.; 6/1/67-5/31/68 (Initial); $32,783 (SRS)

(No abstract supplied)

1467. GREATER CLEVELAND MENTAL RETARDATION DEVELOPMENT PROJECT (RD-2056-G); Buckman, Rilma Oxley, Welfare Federation of Cleveland, Cleveland, Ohio; 1/1/67-12/31/67 (Renewal); $99,497 (SRS)

This research concerns the establishment of a "fixed point of information" about mental retardation services; systematic in-service training for professionals-in-practice; and organization

of a vocational rehabilitation professional team to supplement the services available in the extended sheltered workshops serving the mentally retarded.

1468. INDUSTRIAL TRAINING RESOURCES IN REHABILITATION PROGRAMS FOR RETARDATES (RD-2197-G); Bolanovich, Daniel J., Jewish Employment and Vocational Services, St. Louis, Missouri; 8/1/66-7/31/67 (Initial); $31,495 (SRS)

This research focuses upon current industrial training applicable to rehabilitation projects for retardates such as employer facilities, equipment, and operational procedures, conditions under which those might be used in a community rehabilitation program, training materials and media applicable to vocational training, and conditions under which such methods and media might be produced centrally for general use in rehabilitation programs.

1469. INFLUENCE OF LOW SOCIO-ECONOMIC CLASS AND PARENT PARTICIPATION ON THE ADAPTATION OF RETARDED ADULTS TO A VOCATIONAL REHABILITATION PROGRAM (RD-1919-P); Dubrow, Max, Association for the Help of Retarded Children, New York, N.Y.; 7/1/66-9/30/67 (Renewal); $83,750 (SRS)

This research concerns adaptation of retarded adults to vocational habilitation programs in a sheltered workshop and to the outside community. Cognitive abilities, academic achievement, physical characteristics, manual skills and personality factors will be identified. Cultural, social and psychological influences on parents of retarded adults will be examined.

1470. INTER-DISTRICT SCHOOL REHABILITATION PROGRAM FOR LESS ABLE RETARDED ADOLESCENTS (RD-1810); Henze, Richard J., Educational Research and Development Council, Minneapolis, Minn.; 7/1/66-6/30/67 (Renewal); $85,842 (SRS)

This research concerns ways by which a comprehensive school-rehabilitation program for less able mentally retarded can be established through the "intermediate unit" concept in educational administration and extended to include coordination with the Division of V ocational Rehabilitation and Special Education and the Department of Public Welfare.

1471. INTER-GENERATIONAL RELATIONSHIP - IN THE VOCATIONAL REHABILITATION OF MENTALLY RETARDED (RD-2346-P); Baxt, Roland, Federation Employment and Guidance Service, New York, N.Y.; 1/1/67-12/31/67 (Initial); $52,911 (SRS)

This research proposes to demonstrate the values of a multi-dimensional vocational rehabilitation program for mentally retarded adults. A relationship between the retarded client and an older disabled client to promote the former's feelings of security in the rehabilitation setting and to accelerate vocational development will be used.

1472. JEFFERSON COUNTY OCCUPATIONAL TRAINING CENTER (RD-1547-D); Whitner, Jack W., Council for Retarded Children of Jefferson County, Louisville, Kentucky; 7/1/66-6/30/67 (Renewal); $25,264 (SRS)

This research proposes to establish an effective comprehensive Occupational Training Center for the mentally retarded of employable age. The center proposes to assist a relatively

large number of individuals who have little prospect of employability to obtain specialized services that will permit the use of their maximum vocational potential.

1473. NEW WORK OPPORTUNITIES FOR THE MENTALLY RETARDED (RD-2031-G); National Association of Sheltered Workshops and Homebound Programs, Inc., Washington, D.C.; 6/1/66-10/31/67 (Renewal); $63,542 (SRS)
(No abstract supplied)

1474. OCCUPATIONAL TRAINING AND EVALUATION CENTER FOR THE MENTALLY RETARDED (RD-1546-D); Nimmich, John F., Benevolent & Protective Order of Elks, Charleston, South Carolina; 7/1/66-6/30/67 (Renewal); $17,432 (SRS)
This research aims to strengthen vocational rehabilitation services for the mentally retarded by providing for application of information resulting from the prototype project in New York City. Trainees will be evaluated for a period of 8 to 12 weeks and then trained in vocational and personal skills needed for employment.

1475. OCCUPATIONAL TRAINING CENTER (RD-1345-D); Bennett, Arthur, Committee for the Intellectually Handicapped, Auburn, Maine; 4/1/66-3/31/67 (Renewal); $15,000 (SRS)
This research concerns plans for an occupational training center and workshop for about 20 mentally retarded adults to be trained in vocational and personal adjustment. Attention will be given to hygiene and grooming, adjustment of personality problems and developing good work habits. The transitional workshop will be engaged in the manufacture of new goods, subcontract work and salvaging operations.

1476. OCCUPATIONAL TRAINING CENTER (RD-1257-D); Forman, W. Earle, Vermont Association for Retarded Children, Montpelier, Vermont; 8/1/66-7/31/67 (Renewal); $30,706 (SRS)
This research aims to provide a program of training and employment for the mentally retarded young adult through: training of basic skills, work habits and attitudes; to prepare for a realistic occupational experience; to extend existing school facilities for training to the establishment of this training center; and to demonstrate the feasibility of such a center.

1477. OCCUPATIONAL TRAINING CENTER FOR THE MENTALLY RETARDED (RD-1695-D) Wilson, John C., Northern Kentucky Goodwill Industries, Covington, Kentucky; 1/1/67-12/31/67 (Renewal); $29,400 (SRS)
This research proposes to demonstrate the efficacy of pooling professional skills in a sheltered workshop setting to develop and improve the personal, social and vocational competency of retarded young adults for suitable employment, utilizing the previous experiences of other evaluation and training programs and adopting them to the special problems encountered in Northern Kentucky.

1478. OCCUPATIONAL TRAINING CENTER FOR MENTALLY RETARDED (RD-1824-D);Christ Child School for Retarded Children, St. Paul, Minn.; 12/1/66-11/30/67 (Renewal); $20,000 (SRS)
(No abstract supplied)

1479. OCCUPATIONAL TRAINING CENTER FOR THE MENTALLY RETARDED (RD-2101-G-D) Caruth Memorial Rehabilitation Center, Dallas, Texas; 3/1/67-2/29/68 (Renewal); $39,830 (SRS)

(No abstract supplied)

1480. ORGANIZATION FACTORS AND THE ACCEPTANCE OF NEW REHABILITATION PROGRAMS IN MENTAL RETARDATION (RD-1556-G); Aiken, Michael T., University of Wisconsin, Madison, Wisc.; 7/1/66-9/30/67 (Renewal); $50,114 (SRS)

This research intends to measure the influence of social factors in welfare agencies of Milwaukee, on their receptivity to new programs in mental retardation. The study will involve approximately 50 welfare agencies of which 25 represent the treatment group and 25 will be used for the control group.

1481. OUT-PATIENT SUPERVISED JANITORIAL SERVICES EMPLOYING THE MENTALLY RETARDED (RD-1604-P); Hindman, Larry, Services, Inc., Bellevue, Washington; 7/1/66-6/30/67 (Renewal); $19,159 (SRS)

This research concerns the basic problem, common to all states, of providing the widest number of work opportunities for the mentally retarded and other handicapped persons. This project requires the establishment of a facility supporting mobile units equipped with the tools and supplies necessary for the successful conduct of a janitorial contract business.

1482. PARTICIPATION OF PHS CONTRACT ON MENTAL RETARDATION (NIMH-5); U.S. Public Health Services, Washington, D.C.; 4/15/67-4/15/68 (Initial); $2,000 (SRS)

(No abstract supplied)

1483. SATELLITE WORKSHOPS AS EXTENSIONS OF A CENTRAL VOCATIONAL REHABILITATION PROGRAM (RD-1385-G); Dubrow, Max, Association for the Help of Retarded Children, New York, N.Y.; 8/1/66-7/31/67 (Renewal); $30,010 (SRS)

This research proposes to test a model of organizing satellite sheltered workshops around a central, professionally staffed, vocational habilitation facility. Through such organization, larger numbers of adult retarded now receiving no service because of lack of facilities, will be employed.

1484. SPECIAL SERVICES--RECREATION FOR THE HANDICAPPED (RD-2209-G); Freeberg, William H., Southern Illinois University, Carbondale, Ill.; 9/1/66-8/31/67 (Initial); $22,112 (SRS)

This research proposes to determine the specific recreation needs of the handicapped and tabulate them periodically; digest written materials into "Recommended Readings"; examine existing recreation programs and prepare digests of them into "Recommended Programs"; solicit information regarding procedures from existing programs and prepare digests entitled "Recommended Procedures"; continue publication of the Newsletter; and update annually the bibliography.

1485. STATE DVR ROLE IN IMPLEMENTATION OF THE FEDERAL PROGRAM OF THE MENTAL RETARDATES; Cole, Leslie B., Department of Vocational Rehabilitation, Washington, D.C.; 3/1/67-2/29/68 (Renewal); $34,857 (SRS)

This research deals generally with the implementation of a program established by the U.S. Civil Service Commission in its

FPM Letter 339-4 of Dec. 13, 1963, and is a follow-up on Grant #RD-1637-D. The same methodology will be used; conferences, meetings, interviews, and field trips will be arranged to explore and demonstrate workable techniques for certifying retardates in lieu of Civil Service examination.

1486. VOCATIONAL REHABILITATION OF PHYSICALLY HANDICAPPED AND/OR MENTALLY HANDICAPPED YOUTH (RD-1602-P); Brewer, Edgar W., Lane County Youth Study Board, Eugene, Oregon; 12/1/65-3/31/67 (Renewal); $1,309.(SRS)
This research involves a special vocational rehabilitation project which will serve as a complementary project to a large scale program of recruitment, testing, counseling and training of out-of-school unemployed youth. VR services will be used for screening and rehabilitation of youth with physical and/or mental disabilities, with VR-eligible youth participating to the fullest extent possible in employment training programs.

1487. VOCATIONAL TRAINING OF MENTALLY RETARDED YOUTHS IN PUBLIC HIGH SCHOOLS (RD-1548-D); Smith, James O., University of Kansas, Kansas City, Kansas; 9/1/66-11/30/67 (Renewal); $34,347 (SRS)
This research proposes to utilize the public high school special education classes through the combined effort of rehabilitation counselors, administrators, and special classroom teachers for the vocational evaluation and training of mentally retarded youth.

1488. WORK EXPERIENCE FOR THE MENTALLY RETARDED IN THEIR LAST YEAR OF SCHOOL (RD-1675-D); Zimmerman, John D., Opportunity Center, Inc., Wilmington, Delaware; 1/1/67-12/31/67 (Renewal); $36,632 (SRS)
This research involves the evaluation of the benefits of a cooperative program for the mentally retarded in their last year in school, designed to illustrate how coordinated services between the school's secondary program for the retarded and a work adjustment center can help the student make successful transition from school to employment.

1489. "YOU'RE IT" -- A TRAINING FILM FOR RECREATION LEADERS WORKING WITH THE MENTALLY RETARDED (RD-2039-P); Gilmore, Alden S. , and Rich, Thomas A., MacDonald Training Center Foundation, Tampa, Florida; 1/1/66-12/31/67 (Renewal); $983 (SRS)
This research concerns the production of a 20-minute, 16-mm., sound motion picture film in color to illustrate effective techniques of recreational leadership with the mentally retarded. The goal for the film is the introduction and orientation of volunteer workers and others to the special problems and methods of working with the mentally retarded.

Amelioration - Medical Treatment

1490. ALBUMIN BINDING CAPACITY AND KERNICTERUS (6919-01); Boggs, Thomas R., Jr.; Pennsylvania Hospital, Philadelphia, Pennsylvania; 2/67-1/68 (Initial); $34,876 (NINDB)
This research proposes to begin a clinical trial of the use of the HABA binding as a guide to the management of the jaundice infant. In addition, all exchange transfusions,

except those performed on "sick" erythroblastotic infants, will be done with albumin fortified with donor blood. Experience suggests that these measures will reduce the number of exchange transfusions performed at this institution.

1491. A HOME TRAINING PROGRAM FOR MENTALLY ILL CHILDREN (MH-2245-02); Fenichel, Carl, League School and Research Center, Brooklyn, New York; 1/67 (Renewal); $53,200 (NIMH)

This research proposes a Home-Training and Guidance Program and plans to work with 24 mentally ill children from 3 to 7 years of age and their parents.

1492. A MENTAL HEALTH CENTER FOR DISTURBED BLIND CHILDREN (MH-1044-05); Kass, Walter, Jewish Guild for the Blind, New York, N.Y.; 1/67 (Renewal); $84,844 (NIMH)

This research seeks to translate knowledge of the psychology of blind children and their disturbed states into usable educational, diagnostic, and treatment methods. Knowledge and methods developed will be made available to the professional fields so that agencies, schools, and community clinics can serve the so-called "uneducable" or difficult children who otherwise cannot be accommodated. Referrals may come from any State in the U.S.

1493. AN ENRICHMENT PROGRAM TO REDUCE PHYSICAL RESTRAINT (MH-2275-02); Garstecki, John M., Southern Wisconsin Colony and Training School, Union Grove, Wisconsin; 1/67 (Renewal); $96,702 (NIMH)

This research aims to reduce the number of patients who are physically restrained by reducing the need for the type of behavior which is characteristic of the group. More creative, enriching experiences and relationships will be provided through activities in social, expressive, and physical areas of development.

1494. A REDIRECTION OF SCHOOL NURSING SERVICES IN CULTURALLY DEPRIVED NEIGHBORHOODS (H-58); Bergan, Doris S., Oakland Public Schools, Oakland, California; 4/1/67-3/31/68 (Renewal); $44,015 (SRS)

This research concerns the assignment of selected routine functions performed by a school nurse to non-nurse assistants. With the released time, the services of the school nurse can be redirected to routine home visits, parent education study groups, and follow-up of health problems at home, school, and the community.

1495. CHILDREN'S PSYCHOPHARMACOLOGY UNIT (MH-4665-07); Fish, Barbara, New York University Medical Center, New York, N.Y.; 4/67 (Renewal); $96,523 (NIMH)

This research proposes to continue a program for the systematic study of psychotropic drugs. Standardized psychopharmacological procedures for children in order to evaluate new drugs which may be potentially useful for children and to do controlled studies of drugs which appear therapeutically promising have been developed.

1496. COORDINATING COMMUNITY AND HOSPITAL PSYCHIATRIC SERVICE (MH-1275-04); Glass, Albert J., Oklahoma State Department of Mental Health, Oklahoma City, Okla.; 9/66 (Renewal); $55,995 (NIMH)

This research seeks to demonstrate the value of coordinating treatment efforts of mental institutions with these services available in local communities.

1497. DEMONSTRATING ADAPTIVE BEHAVIOR-PSYCHIATRIC PROBLEM (MH-1862-03); Leland, Henry, American Association on Mental Deficiency, Columbus, Ohio; 12/66 (Renewal); $88,985 (NIMH)

This research proposes to provide new information on the use and function of Adaptive Behavior. This information will further our understanding of the treatment and training needs of emotionally disturbed and mentally retarded individuals.

1498. DEVELOPMENT OF PHENYLKETONURICS CONTROLLED FROM BIRTH (RO1 00318-07S1); Frankenburg, William K., University of Colorado, Denver, Colo.; 9/66-8/67 (Renewal); $13,200 (NICHD)

This research proposes to study in depth the status and development of phenylketonuric children begun on dietary treatment shortly after birth and to clarify which behavioral deficits are produced in utero, which are reversible, and when is it safe to discontinue the dietary treatment.

1499. EFFECTS OF EXTRAPYRAMIDAL LESIONS ON CEREBRAL PALSY (2793-05); Nashold, Blaine S., Duke University, Durham, North Carolina; 1/65-12/66 (Renewal); $18,522 (NINDB)

This research concerns implantation of chronic depth electrodes in a group of children suffering from athetosis, chorea and dystonia. Bipolar stimulation of selected subcortical areas have been carried out with studies of the physiological and electrographic effects. Stereotaxic lesions were made in the medial portion of the globus pallidus, ventral and lateral thalamic areas.

1500. IMPROVED CARE FOR THE AGING RETARDATE (MH-2269-02); Bulow, Harry Von, State Colony, Woodbine, New Jersey; 1/67 (Renewal); $56,116 (NIMH)

This research proposes to develop and implement an intensive activity program in 2 cottage units housing the more seriously retarded geriatric type residents. This is for stimulating and reactivating these residents to a fuller participation in the institutional setting.

1501. IMPROVED MEDICAL SERVICES PROJECT (MH-2159-03); Carter, Phil, Los Lunas Hospital and Training School, Los Lunas, New Mexico; 6/67 (Renewal); $91,072 (NIMH)

This project is designed to enhance diagnosis, treatment and follow-up care for 548 mentally retarded persons through the services of a full-time pediatrician, dentist, physical therapist, speech and hearing therapist, laboratory technician, and x-ray technician.

1502. IMPROVED PHYSICAL THERAPY SERVICE PROGRAM (MH-2424-02); Sigurdson, William E., Kansas Neurological Institute, Topeka, Kansas; 6/67 (Renewal); $49,228 (NIMH)

This research has been planned as a means of more effectively using trained physical therapists and expanding physical therapy services in institutions for the retarded.

1503. IMPROVEMENT OF LANGUAGE SKILLS IN RETARDED CHILDREN (MH-1767-04); Buttimore, Dennis J., North Jersey Training School, Totowa, New Jersey; 6/67 (Renewal); $84,960 (NIMH)

This research proposes to continue and extend the work in language development and speech improvement which has been under way since September 1964. Particular interest lies in refining language tests for the very young, severely retarded residents so that they may be more sensitive reflectors of changes in language understanding and usage.

1504. IMPROVEMENT OF PSYCHO-SENSORY HABILITATION SERVICES (MH-2313-02); Potkonski, Leopold A., Pennhurst State School and Hospital, Spring City, Pennsylvania; 6/67 (Renewal); $94,276 (NIMH)

This research involves provision of a variety of sensory-motor stimulation procedures in order to develop improved verbal communication abilities in severely and profoundly retarded institutionalized patients.

1505. IMPROVEMENT OF SERVICE FOR BEDRIDDEN RETARDED (MH-1971-02); Marriott, George E., Hissom Memorial Center, Sand Springs, Oklahoma; 2/67 (Renewal); $83,227 (NIMH)

This research proposes to maximize through sensory stimulation, the opportunity for the multiply handicapped retardate to achieve the upper limit of his potential.

1506. MAXIMAL STIMULATION AND CARE FOR SEVERELY RETARDED (MH-2173-02); Schultz, H.F., Vineland State School, Vineland, New Jersey; 9/66 (Renewal); $36,782 (NIMH)

This research attempts to provide maximal stimulation and care for 160 severely and profoundly retarded female residents. The residents participate in 1 or more programs of self-feeding, bathing, toilet training, dressing, recreation, physio-therapy, and speech.

1507. MEDICAL IMPROVEMENT AND TRAINING OF THE SEVERELY RETARDED (MH-1805-03); Kirk, David M., Wyoming State Training School, Lander, Wyoming; 2/67 (Renewal); $100,000 (NIMH)

This research concerns 96 young severely and profoundly retarded patients who display effects of institutionalization. Objectives of the project are prevention of this group from becoming long-term custodial residents with little or no ability to care for themselves and to strengthen existing staff responsible for total institutional programming.

1508. MODE OF ACTION OF CONVULSIVE AGENTS (6298-01); Alexander, George J., Research Foundation for Mental Hygiene, Inc., New York, N.Y.; 6/66-5/67 (Initial); $18,340 (NINDB)

This research concerns the elucidation of chemical changes in the central nervous system and elsewhere in the body associated with induction of convulsive seizures. To this end the effects of convulsant chemicals in vitro will be studied and correlated with the effects of the same agents in subconvulsive doses in vivo.

1509. PEPTIDURIA IN MENTAL RETARDATION (MH-12320-02); Berlow, Stanley, Michael Reese Hospital and Medical Center, Chicago, Illinois; 1/67 (Renewal); $9,216 (NIMH)
This research proposes to study peptides in urine of retarded subjects in an effort to characterize new inborn errors of metabolism.

1510. PERINATAL STRESS AND PREMATURITY (RO1 01420-02); Bornhofen, John H., University of Arkansas, Little Rock, Arkansas; 2/67-1/70 (Renewal); $19,795 (NICHD)
This research proposes to continue investigating the outcome up to 5 years of age of a group of over 200 premature infants who had previously been studied as neonates.

1511. PHYSICAL DEVELOPMENT PROGRAM FOR MENTALLY RETARDED (MH-2168-02); Cain, L.W., Abilene State School, Abilene, Texas; 9/66 (Renewal); $41,498 (NIMH)
This research concerns a physical development program for mental retardates which is designed to stimulate, condition and generally improve the activity level of residents who have regressed or demonstrated significant developmental lags in the psychomotor area.

1512. PHYSICAL THERAPY AND RECREATIONAL THERAPY IMPROVEMENT (MH-1721-04); Mulcahy, Raymond M., Brandon Training School, Brandon, Vermont; 6/67 (Renewal); $54,956 (NIMH)
This project proposes in phase 1, the development of self-care skills and group interaction with the severely retarded child, and in phase 2, the continued development of group interaction and emphasis in the prevocational work skills for residents 10 to 16 years of age.

1513. PSYCHIATRIC TREATMENT PROGRAM FOR ADOLESCENTS (MH-2063-03); Adkins, Galen H., Cambridge State School and Hospital, Cambridge, Minnesota; 5/67 (Renewal); $84,800 (NIMH)
This research proposes to provide resident treatment to those children who are emotionally disturbed, psychotic, or have problems in the area of mental health who also qualify for admission to our hospital as retarded and/or epileptic. The alleviation of the psychiatric disability is the primary goal but this has to be included in the total treatment process.

1514. PSYCHO-SOCIAL TREATMENT UNIT (MH-2496-01); Colizzo, Francis P., White Haven State School and Hospital, White Haven, Pennsylvania; 1/67 (Initial); $97,841 (NIMH)
This research concerns the prevention of adolescent mentally retarded residents from becoming "institutionalized" by establishing a psycho-social treatment unit in which the residents needs of acceptance, understanding, consistency, etc., are met through cottage parents.

1515. REWARD TRAINING AND BEHAVIORAL SHAPING (MH-1781-03); Stuckey, Coates, Pinecrest State School, Pineville, Indiana; 2/67 (Renewal); $100,000 (NIMH)
This research compares techniques of training self-help skills in 5 training areas within a residential institution for mentally retarded. Preliminary findings suggest greater

potential for self-help skills for profoundly retarded than previously had been considered.

1516. SOCIAL DEVELOPMENT PROGRAM FOR MENTAL RETARDATES (MH-2169-02); Cain, L.W., Abilene State School, Abilene, Texas; 9/66 (Renewal); $58,554 (NIMH)

This research attempts to reverse the regressed behavioral trends of a critical segment of the epileptic residents by providing adequate environmental stimulation including verbal communication and social interaction, participation in arts and crafts and music therapy.

1517. SPEECH AND HEARING CENTER (MH-1758-04); Bowman, Peter W., Pineland Hospital and Training Center, Pownal, Maine; 6/67 (Renewal); $20,067 (NIMH)

This research aims to test speech and hearing in every patient from the "intellectually normal" emotionally disturbed to the "dependent retarded" and/or disturbed; an expanded service in the area of speech and hearing therapy is anticipated in the hospital.

1518. SPEECH PATHOLOGY AND AUDIOLOGY IMPROVEMENT PROGRAM (MH-1968-03); Hallaba, M.A.S., Winfield State Hospital and Training Center, Winfield, Kansas; 2/67 (Renewal); $54,489 (NIMH)

This research proposes to develop comprehensive audiology, speech pathology and language habilitation services for hospital patients and to provide audiology and speech pathology services on an out-patient and consulting basis to people living in the surrounding communities.

1519. TEAM MANAGEMENT OF THE AMBULANT SEVERELY RETARDED (MH-2485-02); Stevens, Harvey A., Central Wisconsin Colony and Training School, Madison, Wisconsin; 6/67 (Renewal); $90,281 (NIMH)

This research proposes development of an interdisciplinary approach to the training and management of 100 ambulatory severely retarded adults. Methods and techniques to facilitate patient growth in the self-care skill areas will be developed.

1520. TEAM TREATMENT-EVALUATION OF NAB MENTALLY RETARDED (MH-1969-03); Riddle, Joseph I., Western Carolina Center, Morganton, North Carolina; 2/67 (Renewal); $98,099 (NIMH)

This research concerns a 126-bed building which has been divided into treatment units of 16 to 18 patients each. A treatment team mainly concerns itself with developing technical procedures so that individualized patient goals may be achieved.

1521. THE EFFECT OF PLASMIN IN HYALINE MEMBRANE DISEASE (RO1 00249-06); Weintraub, David H., Children's Hospital of Buffalo, Buffalo, New York; 9/66-8/67 (Renewal); $15,908 (NICHD)

This research concerns the treatment of infants in respiratory distress with urokinase activated human plasmin on a double-blind randomized basis. Physical, neurologic and psychologic parameter of survivors is being followed with the aim of evaluating possible late consequences of the disease syndrome.

1522. THERAPEUTIC MILIEU FOR MENTAL RETARDATES (MH-1719-03); Toll, Arthur E., Laconia State School, Laconia, New Hampshire; 5/67 (Renewal); $77,772 (NIMH)

This research proposes extensive and comprehensive medical, psychological and educational evaluation of all residents and the institution of a program of developing self-care skills among the moderately and severely retarded residents.

1523. THERAPEUTIC PROGRAM WITH THE SEVERELY RETARDED (MH-2068-03); Gragg, Logan, Frankfort State Hospital and School, Frankfort, Kentucky; 6/67 (Renewal); $22,707 (NIMH)

This research proposes to demonstrate the value of having a therapeutic program for the severely retarded. The major objective is to raise the level of performance of the 117 residents in feeding, toileting, dressing, grooming, and occupational training. It also includes play therapy sessions and field trips.

1524. UP-GRADING OF GENERAL CARE FOR THE SEVERELY RETARDED (MH-1689-04); Jenkins, Robert A., Colin Anderson Center, St. Marys, West Virginia; 6/67 (Renewal); $45,730 (NIMH)

This research directs efforts towards toilet training of the most severely retarded children. The basic problem consists of establishing a bowel and bladder rhythm in children not yet toilet trained. The next step is spoon feeding at mealtimes.

1525. VENTILATORY ASSISTANCE IN RESPIRATORY DISTRESS SYNDROME (4828-04); Boggs, Thomas R., Pennsylvania Hospital, Philadelphia, Pa.; 9/66-8/67 (Renewal); $22,978 (NINDB)

This research proposes to: develop early clinical and biochemical prognostic criteria in newborn infants with the idiopathic respiratory distress syndrome (RDS); evaluate the effect of mechanical ventilation in infants with RDS who meet the criteria of high mortality; and investigate carbohydrate and lipid metabolism in infants with RDS.

1526. SURVEY OF THE HEALTH NEEDS OF THE ADULT RETARDATE (PHS 108-66-166); Gravink, Marilyn J., Connecticut State Department of Health, Hartford, Connecticut; 6/66-6/68 ( ); $

(No abstract supplied)

Other

1527. A COMMUNITY APPROACH IN THE MANAGEMENT OF DENTAL DISEASE AMONG THE MENTALLY RETARDED (MR-4613A67); Mergele, Marvin E., Harris County Center for the Retarded, Houston, Texas; 7/1/67-6/30/68 (Initial); $37,605 (SRS)

This research proposes to develop a standardized routine of comprehensive dental care for the mentally retarded, to provide a program for parent dental health education and to train professional people in the unique and complex problems of this group.

1528. A COMMUNITY SERVICE DEMONSTRATION PROJECT FOR THE MENTALLY RETARDED IN A RURAL AREA (MR-5301C67); Stevens, Harvey A., State of Wisconsin Department of Public Welfare, Madison, Wisc.; 7/1/67-6/30/68 (Renewal); $72,949 (SRS)

This research proposes to stimulate the development of community services for the mentally retarded in the rural areas. This will lead to a comprehensive and coordinated program of services within the context of existing local and State agencies, programs, and legislation.

1529. A COMPREHENSIVE CLINICAL AND LABORATORY STUDY OF MENTALLY RETARDED AND NEUROLOGICALLY HANDICAPPED CHILDREN (MR-2501B67); St.Paul-Ramsey Hospital, St. Paul, Minnesota; 1/1/67-12/31/67 (Renewal); $105,769 (SRS)

(No abstract supplied)

1530. A COOPERATIVE REGIONAL APPROACH TO DAY-CARE PROGRAMS (MR-4623A67); Barnett, Charles D., Texas Department of Mental Health and Mental Retardation, Austin, Texas; 9/1/67-8/31/68 (Initial); $58,050 (SRS)

This research proposes to establish satellite day-care programs in communities surrounding the 2 new State Centers for Human Development; the day-care programs will provide services to those retardates who cannot profit from or are not eligible for regular special education programs in the public schools.

1531. A COORDINATION CENTER FOR THE RETARDED AND HANDICAPPED (MR-0505B67); Cosand, Merle, San Bernardino County Health Department, San Bernardino, California; 7/1/67-1/31/68 (Renewal); $9,681 (SRS)

This research proposes to establish a coordination center to develop more meaningful use of services by mentally retarded individuals and serve as a fixed point in working with community resources in stabilization and expansion of services for persons afflicted with mental retardation.

1532. A DEMONSTRATION AND RESEARCH PROGRAM IN HEALTH NEEDS AND HEALTH CARE OF CHILDREN IN DAY CARE (H-79); Peters, Ann DeHuff, University of North Carolina, Chapel Hill, N.C.; 11/1/66-10/31/67 (Renewal); $103,053 (SRS)

This research proposes to investigate in a child development center the intellectual motivation and cognitive learning in children from infancy through elementary school age. Comprehensive health care will be given and health problems related to or influenced by group care will be studied. Comparison will be made with a control group in the community given limited health care.

1533. A DEMONSTRATION DAYTIME DEVELOPMENT CENTER PROJECT FOR A SUBURBAN COMMUNITY (MR-4901B67); Kennedy, Harold, Fairfax County Health Department, Fairfax, Virginia; 8/1/66-7/31/67 (Renewal); $91,023 (SRS)

This research proposes to organize and initiate a county-wide system of Daytime Development Centers where a daily program of care, training, and/or education will be provided for the mentally retarded persons whose needs are not presently being met.

1534. A DEMONSTRATION PROGRAM FOR INTENSIVE TRAINING OF INSTITUTIONALIZED MENTALLY RETARDED GIRLS (MR-1801B67); Spradlin, Joseph E., Bureau

of Child Research, University of Kansas, Lawrence, Kansas; 7/1/66-6/30/67 (Renewal); $101,100 (SRS)

This research proposes to demonstrate the application of laboratory derived principles in modifying the personal, social, educational and occupational behavior of moderately and severely retarded, institutionalized girls. The primary technique will be systematic, controlled rewarding of desired behavior.

1535. A DIAGNOSTIC LABORATORY FOR MENTAL RETARDATION (MR-2702B67); Poser, Charles M., University of Missouri, Columbia, Missouri; 9/1/66-8/31/67 (Renewal); $31,800 (SRS)

This research proposes to establish a laboratory which will permit the biochemical, chromosomal, neuropathologic and histochemical diagnostic workup which is now well recognized as being mandatory for the evaluation of mentally retarded individuals.

1536. AIDING COGNITIVE GROWTH IN DISADVANTAGED PRESCHOOLSER (R-300); Family Service Association of Nassau County, Inc., Mineola, New York; 7/1/67-6/30/68 (Initial); $51,090 (SRS)

(No abstract supplied)

1537. A MENTAL RETARDATION COMMUNITY SERVICE CENTER (MR-0514C67); Koch, Richard, Children's Hospital of Los Angeles, Los Angeles, California; 7/1/66-6/30/67 (Renewal); $157,318 (SRS)

This research proposes to provide: a community resource for diagnostic, treatment and counseling services for retarded children and their families; a repository of data concerning mentally retarded children maintained in the community; training for professionals in the area of mental retardation; and a facility for applied research.

1538. AN INDEPENDENT LIVING ORIENTED ACTIVITIES PROGRAM FOR THE MENTALLY RETARDED (MR-3214A67); Division of Mental Retardation, Department of Institutions and Agencies, Trenton, New Jersey; 9/1/67-8/31/68 (Initial); $97,361 (SRS)

(No abstract supplied)

1539. A PROJECT TO DEMONSTRATE NEW DIRECTIONS IN COMMUNITY PROGRAMMING FOR THE SEVERELY RETARDED ADULT (MR-0703B67); Vennert, Bernice, Parents and Friends of Mentally Retarded Children of Bridgeport, Inc., Bridgeport, Connecticut; 9/20/66-9/19/67 (Renewal); $54,625 (SRS)

This research proposes to determine: suitable and productive training activities; supportive and continuing family services; feasibility of returning to the community a number of severely retarded adults now residing in State institutions; and the role within and relationship to a community-based comprehensive service of a program of activities.

1540. A PROPOSED PROJECT TO DEMONSTRATE THE EFFECTIVENESS OF AN ENVIRONMENTAL STIMULATION SERVICE PROGRAM WITH SEVERELY AND PROFOUNDLY RETARDED, NON-AMBULATORY RESIDENTS AT CLOVER BOTTOM HOSPITAL AND SCHOOL (MR-4507B67); Rau, Robert B., Clover Bottom Hospital and School, Donelson, Tennessee; 9/1/67-8/31/68 (Renewal); $65,798 (SRS)

This research provides neuromuscular, sensory, and motor stimulation and warm, personal contact with adults for 187 severely and profoundly retarded nonambulatory residents.

1541. A PROSPECTIVE STUDY OF HANDICAPPED CHILDREN (PC-1300); Ruess, A.L., University of Illinois Hospitals, Chicago, Illinois; 8/1/66-11/30/67 (Initial); No funds extended (SRS)

This research focuses on a 1-year programmatic-developmental project to be established for the development of a research design and a multidisciplinary team for a prospective study of a multipli-handicapped children and all members of the primary family unit.

1542. A RECREATION PROGRAM FOR RETARDED AND MULTIPLE HANDICAPPED CHILDREN: TREK: Touring the Retarded for Experience and Knowledge (MR-0305A67); Ganoung, Laura D., Exceptional Children, Inc. (Camp Echo); Tucson, Arizona; 6/11/67-5/10/68 (Initial); $17,670 (SRS)

This research proposes to provide mentally retarded and multiple handicapped children opportunity to develop social competence, language experience skills, perceptual training, and a wider scope of information through a mobilized camping recreation program.

1543. A THERAPEUTIC RESIDENTIAL FACILITY FOR MENTALLY RETARDED YOUNG ADULTS IN THE COMMUNITY (MR-0609A67); Calabrese, Joseph V., Laradon Hall Society, Denver, Colorado; 7/1/67-6/30/68 (Initial); $80,960 (SRS)

This research proposes to use a housing facility as a formalized training and treatment resource to attempt to systematically prepare the young adult mental retardate for independent life in the community. Operating in conjunction with the existing Laradon Occupational Training Center, the residential facility will have a capacity of 40 beds, 20 male and 20 female.

1544. ATLANTA ADULT ACTIVITY CENTER (MR-1110A67); Atlanta Association for Retarded Children, Atlanta, Georgia; 7/1/67-6/30/68 (Initial); $44,600 (SRS)

(No abstract supplied)

1545. A WORK-RELATED CHILD DEVELOPMENT CENTER (D-288); KLH Child Development Center, Inc., Cambridge, Mass.; 7/1/67-6/30/68 (Initial); $63,995 (SRS)

(No abstract supplied)

1546. BEHAVIORAL CLASSIFICATION OF NEUROLOGICAL PATIENTS (3535-05); Sidman, Murray, Massachusetts General Hospital, Boston, Mass.; 5/66-4/67 (Renewal); $76,478 (NINDB)

This research proposes to apply rigorous laboratory techniques to determine the type of changes that have taken place in the functional relations between behavior and its controlling variables in neurological patients. The main theme of the work will be research in normal and abnormal child behavior and mental development, with emphasis upon diseases of the child's nervous system.

1547. BUCKHORN DAY CARE PROJECT (D-180); Kodman, Frank, Kentucky Department of Child Welfare, Frankfort, Kentucky; 7/1/66-6/30/68 (Renewal); $5,000 (SRS)

This research concerns a project which began in August 1964 designed to evaluate and demonstrate in a qualitative and quantative manner the benefits from an enriched learning program. A control group has been matched to the experimental group; evaluations will continue as the children move into public schools.

1548. CLINICAL AND LABORATORY STUDIES ON RUBELLA (RO1 00737-03); Schiff, Gilbert Martin, University of Cincinnati, Cincinnati, Ohio; 9/66-12/67 (Renewal); $23,902 (NICHD)

This research concerns development of more practical tests for rubella, seriological surveys to determine immune status of the general population to provide information for future prophylactic programs, longitudinal studies on newborns to determine the incidence of congenital rubella, evaluation of the efficacy of gamma globulin to prevent fetal abnormalities, and studies of epidemiology.

1549. CLINICOPATHOLOGIC CORRELATIONS IN CEREBRAL PALSY (1)(2360-09S1); (2)(2360-09S2); Slobody, Lawrence B., New York Medical College, New York, N.Y.; (1)11/66-6/67; (2) 1/67-6/67 (Renewal); (1)$172,030; (2)$272,428 (NINDB)

This research concerns a prospective collaborative study to evaluate the various prenatal factors which influence the occurrence of cerebral palsy, mental retardation, and other neurological and sensory disorders of infancy and childhood, as well as of defects of other body systems.

1550. COLLABORATIVE STUDY OF CEREBRAL PALSY (1)(2370-09); (2)(2370-09S1); Benson, Ralph C., University of Oregon Medical School, Portland, Oregon; (1) 12/65-6/67; (2) 1/67-6/67 (Renewal); (1)$574,592; (2)$222,307 (NINDB)

This research concerns a collaborative study seeking the possible causes of cerebral palsy, mental retardation and other neurologic disorders.

1551. COLLABORATIVE PROJECT OF CEREBRAL PALSY (1)(2366-09); (2)(2366-09S1); (3)(2366-09S3); Scott, Thomas McNair, The Children's Hospital of Philadelphia, Philadelphia, Pa.; (1) 10/65-6/67; (2) 11/66-6/67; (3) 1/67-6/67 (Renewal); (1)$484,931; (2)$157,239; (3)$294,430 (NINDB)

This research concerns the collaboration of The Children's Hospital of Philadelphia and the Pennsylvania Hospital as the Philadelphia project in the Collaborative Project for Cerebral Palsy, Mental Retardation and other Neurological and Sensory Disorders of Infancy and Childhood.

1552. COLLABORATIVE STUDY OF CEREBRAL PALSY (1)(2367-09); (2)(2367-10); Israel, S. Leon, Pennsylvania Hospital, Philadelphia, Pa.; (1)6/65-5/67; (2) 6/1/67-6/30/67 (Renewal); (1)$508,806; (2)$1,327 (NINDB)

This project proposes to continue to register cases and collect data according to the protocol and plans previously established by the Collaborative Study. Final examination of patients will be completed during this grant year. Efforts then will be directed

towards local and general analyzation of data and preparation of publications.

1553. COLLABORATIVE STUDIES IN CEREBRAL PALSY AND OTHER NEUROLOGICAL AND SENSORY DISORDERS IN INFANCY AND CHILDHOOD (2406-08); Hughes, James G., University of Tennessee Medical Units, Memphis, Tenn.; 9/65-6/30/67 (Renewal); $438,084 (NINDB)

This research is part of a national program involving 14 institutions directed toward seeking to determine prenatal and perinatal causes of cerebral palsy and other manifestations of brain damage (epilepsy, mental retardation, brain damage behavior pattern).

1554. COLLABORATIVE STUDY ON CEREBRAL PALSY AND OTHER NEUROLOGICAL AND SENSORY DISORDERS OF INFANCY AND CHILDHOOD (2363-08); Ware, H. Hudnall, Medical College of Virginia, Richmond, Virginia; 6/66-8/67 (Renewal); $510,669 (NINDB)

This research is in collaboration with 12 institutions and the Perinatal Research Branch of the National Institute of Neurological Diseases and Blindness, the Child Development Study at the Medical College of Virginia and proposes to continue collection of data according to the protocol of the Collaborative Study of Cerebral Palsy and Other Neurological and Sensory Diseases of Infancy and Childhood.

1555. COMMUNITY DAY CARE PROGRAM (MR-4514A67); Bistowish, J.M., Metropolitan Health Department, Nashville, Tennessee; 7/1/67-6/30/68 (Initial); $101,486 (SRS)

This research proposes a satellite Day Care Center and Training Program for the severely retarded children and adults in Davidson County. Specific needs of the community will be met by cooperation with private and official agencies, civic and service groups and educational institutions.

1556. COMPREHENSIVE CASE-FINDING AND DAY-CARE SERVICES FOR THE TOTALLY DEPENDENT CHILD (MR-2308A67); 4/1/67-3/31/68 (Initial); $76,290 (SRS)

(No abstract supplied)

1557. COMPREHENSIVE DAY CARE PROGRAM FOR THE MENTALLY RETARDED (MR-3510A67); Ross, C. Reid, Fayetteville City Board of Education, Fayetteville, North Carolina; 7/1/67-6/30/68 (Initial); $53,166 (SRS)

This project proposes to give day care services to retardates of all ages beginning with the very young.

1558. COMPREHENSIVE DAY PROGRAMS FOR PROFOUNDLY TO MODERATELY RETARDED ADULTS (MR-0913A67); Friedman, Erwin, Jewish Foundation for Retarded Children, Washington, D.C.; 9/1/67-8/31/68 (Initial); $77,214 (SRS)

This research proposes to demonstrate the feasibility and advantages of a comprehensive community-based activity day center for profoundly to moderately retarded individuals between the ages of 18 and 40.

1559. COORDINATOR OF SERVICES FOR THE MENTALLY RETARDED IN NATRONA COUNTY (MR-5402A67); Natrona County School District #2, Casper, Wyoming; 2/1/67-1/31/68 (Initial); $14,602 (SRS)

(No abstract supplied)

1560. CREATING THERAPEUTIC PYRAMIDS USING MENTALLY RETARDED PATIENTS (MR-0522A67); Henker, Barbara A., Fairview State Hospital, Costa Mesa, California; 9/1/67-8/31/68 (Initial); $41,683 (SRS)

This research proposes to establish a method for teaching mentally retarded patients (tutors) to modify the behavior of younger patients (trainees) by systematically applying the techniques of operant conditioning and imitative learning.

1561. DAY CARE--ACTIVITY PROGRAM FOR RETARDED ADULTS (MR-1904A67); Blue Grass Association for Retarded Children; 3/1/67-2/28/68 (Initial); $62,023 (SRS)

(No abstract supplied)

1562. DAY CARE ACTIVITY PROGRAM FOR THE ADULT RETARDED (MR-0723A67); Mansfield State Training School, Mansfield Depot, Connecticut; 7/1/67-6/30/68 (Initial); $77,839 (SRS)

(No abstract supplied)

1563. DAY CARE CENTER DEMONSTRATION PROJECT FOR SEVERELY RETARDED CHILDREN (MR-2712A67); St. Louis University School of Medicine, St. Louis, Missouri; 7/1/67-6/30/68 (Initial); $39,540 (SRS)

(No abstract supplied)

1564. DEMONSTRATION OF NEW PATHWAYS FOR SERVICES TO THE HOME BOUND MENTALLY RETARDED CHILDREN (MR-1505B67); Woloshin, Arthur A., Charles F. Read Zone Center, Chicago, Illinois; 9/1/67-8/31/68 (Renewal); $34,398 (SRS)

This research proposes to provide meaningful service to the home bound retarded child and to his family; to move the child back into the mainstream of community life; to prevent family disorganization and personality disintegration of individual family members; and to reduce pre-mature institutionalization and reduce over-crowding.

1565. DEMONSTRATION PROJECT ILLUSTRATING THE VALUE OF URINARY CHROMATOGRAPHIC SCREENING IN A SELECTED POPULATION OF MENTALLY RETARDED CHILDREN (N-0507E67); Donnell, George N., Children's Hospital of Los Angeles, Los Angeles, California; 7/1/67-6/30/68 (Renewal); $43,984 (SRS)

This research offers the patient, his family, and the community well developed biochemical techniques for the metabolic evaluation of preschool, non-institutionalized mentally retarded children.

1566. DETECTION OF METABOLIC AND OTHER INHERITED DISEASES IN CHILDREN (H-89); Gerald, Park S., Children's Hospital Medical Center, Boston, Mass.; 7/1/67-6/30/68 (Renewal); $40,625 (SRS)

This research aims to assess screen tests for detection of patients with metabolic disease. Capillary blood samples and urine samples will be collected from a children's hospital population and will be examined for abnormal amounts and kinds of amino acids and other metabolites.

1567. DEVELOPING A MASTER PLAN FOR COMPREHENSIVE COMMUNITY SERVICES FOR THE MENTALLY RETARDED (MR-4301B67); Cicenia, Erbert F., South Carolina Retarded Children's Habilitation Center, Charleston, South Carolina; 1/1/67-12/31/67 (Renewal); $46,503 (SRS)

This research proposes to establish a central facility in the Charleston area to coordinate a comprehensive program of lifetime services to the mentally retarded. Implementation will involve official and voluntary agencies, will create additional services, use all available local, State and fiscal resources, and use existing community-based mental retardation service facilities.

1568. DEVELOPMENTAL-RECREATION PROGRAM FOR MENTAL RETARDATES (MR-4601B67); L.W. Cain, Abilene State School, Abilene, Texas; 5/1/67-4/30/68 (Renewal); $68,120 (SRS)

This research proposes initiation of a physical-recreational type program designed to improve the general physical health of its 1500-1800 institutionalized retardate population. The project includes physical stimulation, group participation and cooperation, fostering psychological health, and nurturing the social and emotional well-being of the residents.

1569. DEVELOPMENT OF A DEMONSTRATION DAY CARE CENTER FOR YOUNG CHILDREN (D-156); Richmond, Julius B., Syracuse University, Syracuse, New York; 7/1/67-6/30/68 (Renewal); $238,476 (SRS)

This research focuses upon children 6 mo. to 3 yrs. of age whose mothers work; it proposes to determine whether an appropriate day care environment can be created which can offset developmental detriment associated with maternal separation, and possibly add a degree of environmental enrichment frequently not available in families of limited resources.

1570. DEVELOPMENT OF A RESIDENT TRAINING SERVICE (MH-1812-03); Jones, Vernon, Mexia State School, Mexia, Texas; 6/67 (Renewal); $93,091 (NIMH)

This project proposes the establishment of a resident training team to work with severely or profoundly retarded residents whose prognosis for development in one or more of the self-help areas is favorable.

1571. DEVELOPMENT OF BRAIN ELECTRICAL ACTIVITY OF INFANTS (6486-02); Ellingson, Robert J., University of Nebraska, Lincoln, Nebraska; 1/67-12/67 (Renewal); $34,024 (NINDB)

This research proposes to: develop and/or refine methods of recording and analyzing brain electrical activity for the study of the developing human brain; study longitudinally the development of those aspects of brain electrical activity during infancy; and record the clinical development of the subjects, and relate factors in brain electrical and clinical development.

1572. DEVELOPMENT OF COMPARABLE OBSTETRIC, GYNECOLOGIC AND INFANT TERMINOLOGY AND CLINICAL STATISTICS (H-169); Hughes, Edward C., American College of Obstetricians and gynecologists, Chicago, Illinois; 8/1/67-7/31/68 (Renewal); $45,128 (SRS)

This research proposes to develop a standard terminology in obstetrics and gynecology for international, national and local statistical analysis.

1573. DEVELOPMENT OF INDIVIDUAL POTENTIAL OF TRAINABLE RETARDED THROUGH PHYSICAL EDUCATION (MR-1903B67); Brown, Billy Joe, Blue Grass Association for Retarded Children, Lexington, Kentucky; 7/1/67-6/30/68 (Renewal); $59,669 (SRS)

This research proposes to develop individual potential of the trainable retarded through an intensive, comprehensive program of physical education. The project is designed to relate the effects of health and safety instruction, physical fitness and recreation activities to intellectual, social, and vocational development and performance.

1574. DIAGNOSIS OF FETAL INTRAUTERINE MALNUTRITION (H-172); Metcoff, Jack, Michael Reese Hospital and Medical Center, Chicago, Ill.; 7/1/67-6/30/68 (Renewal); $36,060 (SRS)

This research proposes to provide improved diagnostic criteria for definition of the infant with intrauterine malnutrition syndrome by supplementing the clinical finding with biological evaluation of nutritional status. The biochemical criteria will also be used to improve and study the effects of neonatal treatment.

1575. DIAGNOSTIC AND DEMONSTRATION CLINIC IN MENTAL RETARDATION (MR-4501D67); Crimp, E. Perry, Meharry Medical College, Nashville, Tennessee; 3/1/67-2/29/68 (Renewal); $97,965 (SRS)

This research proposes the screening of infants and children in the pediatric age group for mental retardation, and the detailed evaluation of cases considered to be functioning at a level indicative of intellectual deficiency.

1576. EARLY CHILD STIMULATION THROUGH PARENT EDUCATION (R-306); University of Florida, Gainesville, Florida; 7/1/67-6/30/68 (Initial); $158,767 (SRS)

(No abstract supplied)

1577. EFFECT OF SENSORIMOTOR ACTIVITY ON PERCEPTION AND LEARNING IN THE NEUROLOGICALLY HANDICAPPED CHILD (H-126); Ayres, A. Jean, University of Southern California, Los Angeles, California; 7/1/67-6/30/68 (Renewal); $14,487 (SRS)

This research focuses on sensorimotor training to emphasize intersensory integration of tactile, proprioceptive, auditory and visual stimuli through hypothesized central nervous system mechinisms and presumed use of the reticular activating system.

1578. ENHANCEMENT OF RECREATION SERVICE TO DISABLED CHILDREN (C-202); New York University, New York, N.Y.; 7/1/67-6/30/68 (Initial); $49,312 (SRS)

(No abstract supplied)

1579. EPIDEMIOLOGIC STUDY OF CHILD ABUSE (H-83); Gil, David G., Brandeis University, Waltham, Massachusetts; 7/1/67-6/30/68 (Renewal); $172,210 (SRS)

This research proposes to examine the incidence and ratio of child abuse in the U.S., the characteristics of those involved in child abuse either as victims or perpetrators, the circumstances surrounding incidents of child abuse, and the patterns of medical, welfare, and legal intervention measures.

1580. EVALUATING STATE INSTITUTIONS FOR THE RETARDED (MR-5501B67); Nisonger, Herschel W., American Association on Mental Deficiency, Washington, D.C.; 7/1/67-6/30/68 (Renewal); $115,834 (SRS)

This research proposes to make professional evaluative services available to all State residential institutions for the mentally retarded in the United States.

1581. EVALUATION AND CONSULTATION SERVICE FOR MENTAL RETARDATION IN THE UNION COUNTY AREA OF NORTHERN NEW JERSEY (MR-3203B67); LaCrosse, Edward L., and Stone, Nellie D.; 9/1/67-8/31/68 (Renewal); $104,265 (SRS)

This research proposes to develop a comprehensive program of clinical services in coordination with the community and professional resources needed to assist the mentally retarded of all ages, and their families, to function optimally throughout their lifetimes.

1582. EVALUATION OF "KLH" CHILD DEVELOPMENT CENTER (D-288-A); Brandeis University, Waltham, Massachusetts; 9/1/67-8/31/68 (Initial); $26,047 (SRS)

(No abstract supplied)

1583. EVALUATION OF NUTRITIONAL STATUS OF PRE-SCHOOL CHILDREN IN THE UNITED STATES (H-170); Owen, George M., Children's Hospital Research Foundation, Columbus, Ohio; 7/1/67-6/30/68 (Renewal); $178,637 (SRS)

This research concerns the nutritional status of preschool children in the U.S.; each child studied will have a detailed social, medical and dietary history, a complete physical examination, and certain anthropometric measurements and a battery of biochemical determinations made with specimens of blood and urine.

1584. EVALUATION OF SENSORY-MOTOR ARTICULATION THERAPY (C-55); McDonald, Eugene T., Pennsylvania State University, University Park, Pennsylvania; 5/1/67-12/31/67 (Renewal); $23,531 (SRS)

This research, a continuation of the investigation of the relative effectiveness of sensory-motor articulation therapy, envisions the addition of a phase designed to control for the effect of therapist's personalities on reduction of articulatory errors in the third to sixth grade children.

1585. EVALUATION OF THE INTERDISCIPLINARY TEAM FOR PROFESSIONAL TRAINING AND FOR PROVISION OF SERVICES TO HANDICAPPED CHILDREN (C-187); Deisher, Robert W., University of Washington, Seattle, Wash.; 7/1/67-6/30/68 (Renewal); $52,633 (SRS)

This research proposes to allow accumulation and comparison of empirical data relevant to diagnostic formulations, programmatic recommendations and prognostic judgments made by individual professionals functioning alone and by interdisciplinary teams of varying size and disciplinary composition.

1586. EVALUATION STUDIES ON MATERNAL AND INFANT CARE PROJECTS (PH-700); Tayback, Matthew, University of Maryland, College Park, Maryland; 7/1/67-6/30/68 (Renewal); $203,266 (SRS)

This research concerns the preparation of evaluative reports

based upon current data submitted by cooperating projects (authorized by the Children's Bureau) and to further develop protocols for evaluation of family planning and infant care services. Exploratory work will begin on comprehensive medical care for children and youth.

1587. FACTORS AFFECTING THE NEUROLOGICAL STATUS OF CHILDREN AND METHODS FOR EARLY RECOGNITION (1)(2404-08S1); (2)(2404-08S2); Westphal, Milton C., Jr., Children's Hospital at Buffalo, Buffalo, New York; (1) 1/67-6/67; (2) 6/1/67-6/30/67 (Renewal); (1)$72,741; (2)$17,556 (NINDB)

This research proposes to find correlations between pre- and peri-natal events as identified by careful prospective observations of the course of pregnancy and the ultimate outcome of the child as measured by Pediatric Neurologic, Speech and Hearing exams at regular intervals up to 8½ years, and evaluation of school performance up to 12 years of age.

1588. FETAL LIFE STUDY -- THE ROLE OF PRENATAL INFLUENCES (H-151); Columbia University, New York, N.Y.; 7/1/67-6/30/68 (Renewal); $57,300 (SRS)

(No abstract supplied)

1589. HEALTH CARE PATTERNS AMONG LOW INCOME FAMILIES (H-74); Alpert, Joel J., Harvard University, Boston, Mass.;7/1/67-6/30/68 (Renewal); $120,708 (SRS)

This research intends to describe the health status and patterns of use of medical services in a sample of urban poor families, to study acceptance or rejection and use of a pediatric care program, to analyze the effects of the program after 3 years, and to compare costs of this program with traditional episodic use of multiple health resources.

1590. HIGH-RISK INFANT FOLLOW-UP STUDY (H-224); University of Colorado Medical Center, Denver, Colorado; 7/1/67-6/30/68 (Initial); $15,667 (SRS)

(No abstract supplied)

1591. IMPLEMENTATION GRANT, KENNEDY CENTER, PEABODY (PO1 02877-01); Hobbs, Nicholas, George Peabody College for Teachers, Nashville, Tennessee; 5/67-4/72 (Initial); $70,307 (NICHD)

This research proposes to increase the effectiveness and productivity of the research and research training program of the Kennedy Center at Peabody. Administrative assistance to ensure coordination and communication among various research and training activities and certain common use resources such as a primate colony, an apparatus shop, and computer personnel and time are needed.

1592. IMPLEMENTING A COOPERATIVE PROGRAM TO PROVIDE A COMPREHENSIVE COMMUNICATION IMPROVEMENT AND COUNSELING SERVICE TO MENTALLY RETARDED CHILDREN (MR-1101B67); Augusta Speech and Hearing Center, Augusta, Georgia; 9/1/66-8/31/67 (Renewal); $32,596 (SRS)

(No abstract supplied)

1593. INTENSIFICATION OF RESEARCH IN MENTAL RETARDATION (PO1 02553-01); Warkany, Josef, Children's Hospital, Cincinnati, Ohio; 9/66-8/71 (Initial); $158,992 (NICHD)

This project involves funds for a period before certain buildings are ready for occupancy and for funds to make possible additional investigations in mental retardation after the opening of the Institute for Developmental Research when new divisions will be activated and staffed.

1594. INTERAGENCY CASE INFORMATION SERVICE (MR-1702B67); Burnett, Walter M., Board of Control of State Institutions, Des Moines, Iowa; 1/1/67-12/31/67 (Renewal); $52,886 (SRS)

This research proposes to provide a means for the dissemination of case information on the mentally retarded to selected direct service agencies in order to upgrade the quality of service through the development of a computerized system of data collection, filing, retrieval, and dissemination.

1595. LAW, MENTAL DISORDER AND JUVENILE PROCESSES (PR-1600); Washington Center for Metropolitan Studies, Washington, D.C.; 7/1/67-6/30/68 (Renewal); $88,146 (SRS)

(No abstract supplied)

1596. LONGITUDINAL STUDY OF EEG PATTERNS IN CHILDREN (3418-04); Torres, Fernando, University of Minnesota, Minneapolis, Minn.; 9/66-8/67 (Renewal); $15,191 (NINDB)

This research concerns the performance of concurrent EEG and clinical studies on unselected children who have had EEG's at birth and who now have reached different ages. Prognostic value of EEG will be tested by comparing early electrical abnormalities with the clinical course.

1597. METROPOLITAN CRITICAL AREAS PROJECT (R-174); Rowe, Helen, Camp Fire Girls, Inc. , New York, New York; 10/1/66-9/30/67 (Renewal); $70,028 (SRS)

This research aims to study new ways of organizing and developing girls groups experiences, program activities, and volunteer leadership to make a significant contribution to the social development of girls (including the mentally retarded) ages 7 through high school in Boston, Mass., Detroit, Michigan, and Washington, D.C.

1598. MITIGATION OF MENTAL RETARDATION THROUGH EARLY CARE AND MANAGEMENT OF CEREBRAL PALSIED INFANTS - A DEMONSTRATION PROGRAM (MR-3508A67); The North Carolina Cerebral Palsy Hospital, Durham, North Carolina; 7/1/67-6/30/68 (Initial); $41,673 (SRS)

(No abstract supplied)

1599. NEONATAL BRAIN DAMAGE AND BEHAVIORAL DEVELOPMENT (6562-02); Foshee, Donald P., Auburn University, Auburn, Alabama; 1/66-8/67 (Renewal); $14,880 (NINDB)

This research concerns a project in which macaca mulatta primates are lesioned electrolytically at birth and studied on a variety of behavioral tasks for the first 2 years of life.

1600. NORTH COUNTRY CENTER FOR EXCEPTIONAL CHILDREN (MR-3102A67); North Country Community Services, Berlin, New Hampshire; 7/1/67-6/30/68 (Initial); $20,436 (SRS)

(No abstract supplied)

1601. ONE DAY DIAGNOSTIC AND EVALUATION CLINIC (MR-1011A66-S67); Wunderlich, Ray C., American Legion Children's Hospital, St. Petersburg, Florida; 7/1/66-9/30/67 (Initial); $8,019 (SRS)

This research proposes to establish a 1-day diagnostic and evaluation clinic. It is needed to fully evaluate abberations in the growth, development, neurological status and intelligence of children.

1602. PARENT EDUCATION IN CHILD REARING PRACTICES FOR MENTALLY RETARDED (MR-3445A67); Holmes, Douglas, Associated YM-YWHAs of Greater New York, New York, N.Y.; 7/1/67-6/30/68 (Initial); $37,788 (SRS)

This research proposes to establish among parents of retarded children educative programs dealing particularly with the social and sexual behaviors of retardates.

1603. PERSONAL DEVELOPMENT AND DAY CARE CENTER (MR-3101A67); Manchester Association for Retarded Children, Manchester, New Hampshire; 7/1/67-6/30/68 (Initial); $19,887 (SRS)

(No abstract supplied)

1604. PLAN TO PROMOTE AND STUDY THE EFFECTIVE UTILIZATION OF NONPROFESSIONAL PERSONNEL IN CHILDREN'S BUREAU RETARDATION CENTERS (C-64); Mark, Henry J., Johns Hopkins University, Baltimore, Maryland; 7/1/67-6/30/68 (Renewal); $208,687 (SRS)

This research concerns the training of technicians at 10 Children's Bureau Centers to operate a decision-free psychometric data collection analysis and report-writing tool. Computers located at Hopkins will monitor the output of the 10 centers, keep epidemiologic records and tailor modified tools to the sensitivity-specificity requirements of each center.

1605. PROGRAM FOR A RESEARCH CENTER IN MENTAL RETARDATION (PO1 02528-01A1); Schiefelbusch, R.L., University of Kansas, Lawrence, Kansas; 1/67-12/68 (Initial); $113,192 (NICHD)

This research concerns: creation of administrative functions, especially channels for planning, communication, coordination, and management; development of common facilities for research support and development; implementation of new research and the intensification of maintaining research; and synthesis of research, research application, and research training.

1606. PROTECTING THE CHILD VICTIM OF SEX CRIMES COMMITTED BY ADULTS (R-222); American Humane Association, Denver, Colorado; 7/1/67-6/30/68 (Renewal); $53,342 (SRS)

(No abstract supplied)

1607. PUEBLO COMMUNITY INTERAGENCY MENTAL RETARDATION PROGRAM (MR-0602B67); Smith, Rodney M., Pueblo Interagency and Citizens' Council for the Severely Handicapped and Mentally Retarded, Pueblo, Colorado; 9/1/66-8/31/67 (Renewal); $52,901 (SRS)

This research proposes to continue to provide for the development and continued demonstration of a total community-centered program and approach to the problems of the mentally retarded.

1608. RESEARCH IN MENTAL RETARDATION (PO1 02712-01); Tarjan, George, University of California, Los Angeles, Calif.; 1/67-3/72 (Renewal); $101,065 (NICHD)

This research proposes to establish an interdisciplinary research program aimed at solving problems in mental retardation and related aspects of human development. Biomedical as well as behavioral research will form components of the program, with emphasis on both basic and clinical research.

1609. RESEARCH IN MENTAL RETARDATION AND CHILD DEVELOPMENT (PO1 02274-01S1); Thieme, Frederick P., University of Washington, Seattle, Washington; 7/66-6/69 (Renewal); $3,972 (NICHD)

This research concerns support for the Director and the small staff necessary to implement the multi-disciplinary research programs of the M.R.C.D. Center which are contemplated and to plan the new facilities in such a way as to maximize interdisciplinary coordination and scientific productivity.

1610. RESEARCH IN MENTAL RETARDATION AND HUMAN DEVELOPMENT (PO1 01799-02); Gordon, Harry H., Yeshiva University, New York, N.Y.; 9/66-8/69 (Renewal); $74,940 (NICHD)

This project concerns support of the scientific activities of the Director and staff of a Center for Research in Mental Retardation and Human Development during the next 4 years of initiation and expansion of research programs, recruitment of scientific personnel, implementation of affiliations with community agencies for the retarded, and detailed planning of new research facilities in order to ensure maximum scientific productivity.

1611. SATELLITE DAY CENTERS FOR RETARDED ADULTS (MR-3404B67); Gorelick, Jack, Association for the Help of Retarded Children, New York Chapter, New York, N.Y.; 3/1/67-2/28/68 (Renewal); $84,964 (SRS)

This research aims to establish satellite day centers in the various boroughs of the city to serve applicants on the waiting list and to provide programs closer to place of residence, to investigate the public health needs of moderately and severely retarded adults, and to provide appropriate treatment recommended by medical specialists.

1612. SENSORY DISCRIMINATION AND LEARNING IN INFANTS (4268-05); Lipsitt, Lewis P., Brown University, Providence, Rhode Island; 9/66-8/67 (Renewal); $49,214 (NINDB)

This research proposes to explore the sensory and learning capacities of the human infant from birth through the first year of life. Procedures have been devised and are under development for the study of changes in infant behavior induced through experimental circumstances.

1613. SERVICES FOR COMMUNICATION DISORDERS IN A COMMUNITY PROGRAM FOR THE MENTALLY RETARDED (MR-1003B67); Webb, Clarence E., MacDonald Training Center Foundation, Inc., Tampa, Florida; 1/1/67-12/31/67 (Renewal); $23,917 (SRS)

This research proposes the establishment of a demonstration program in mental retardation and speech and hearing with the intention of applying current knowledge to a community-based effort in communicative habilitation of the retarded.

1614. SHORT TERM ADMISSION PROGRAM (MH-2067-02); Mangum, Vernon, O'Berry Center, Goldsboro, North Carolina; 5/67 (Renewal); $18,400 (NIMH)

This project involves the reservation of 200 beds for short-term admissions in a 1200-bed institution; waiting periods and admission red tape have been eliminated. Applicants are accepted for 1 year for evaluation and training; those requiring long-term care are assigned long-term beds when available.

1615. SOCIAL DEVELOPMENT CENTER (MR-0525A67); San Francisco Aid for Retarded Children, San Francisco, California; 7/1/67-6/30/68 (Initial); $49,692 (SRS)

(No abstract supplied)

1616. STUDY OF MENTAL RETARDATION AND NEUROLOGICAL DISEASES OF CHILDREN (5489-03); MacQueen, John C., State University of Iowa, Iowa City, Iowa; 10/66-12/67 (Renewal); $150,000 (NINDB)

This research concerns the Children's Research Unit making possible the expansion of the current clinical and laboratory investigations related to neurological diseases and mental retardation now being carried on by members of the Department of Pediatrics.

1617. SUPPLEMENTAL DAYTIME CARE OF INFANTS (GROUP CARE OF INFANTS) (D-256); University of North Carolina, Greensboro, North Carolina; 1/1/67-12/31/67 (Renewal); $108,385 (SRS)

(No abstract supplied)

1618. THE CHILD AND THE STATE (H-91); Eliot, Martha M., American Public Health Association, New York, N.Y.; 6/1/67-5/31/68 (Renewal); $54,694 (SRS)

This research embraces social welfare, juvenile delinquency, youth employment and child labor, health and medical care, education and human rights. It is proposed that the research be used for a new and enlarged edition of The Child and the State by the American Public Health Association, and published by the Harvard University Press.

1619. THE DEVELOPMENT AND IMPLEMENTATION OF AN INFORMATION-EDUCATION AND REFERRAL SERVICE SYSTEM FOR THE STATE OF TEXAS PROGRAM IN MENTAL RETARDATION (MR-4622A67); Barnett, Charles D., Texas Department of Mental Health and Mental Retardation, Austin, Texas; 9/1/67-8/31/68 (Initial); $58,448 (SRS)

This research proposes to establish a State-level clearing house for an information-education and referral service system on mental retardation and will strive to strengthen all local and regional resources for accomplishing more effective services of this nature.

1620. THE IMPACT OF THE LAW UPON THE MENTAL, PHYSICAL AND MORAL HEALTH OF THE FAMILY UNIT (PR-400); Louisell, David W., University of California, Berkeley, California; 1/1/67-12/31/67 (Renewal); $90,855 (SRS)

This research concerns the quality of a family's decision of whether to institutionalize a retarded child. Sources of information for this work are library research, surveys of community agencies and courts, and interviews with families.

1621. THE IMPROVEMENT AND EXPANSION OF DIAGNOSTIC, EVALUATIVE AND PREVENTIVE SERVICES FOR MENTALLY RETARDED CHILDREN (MR-4611B67);

Athanasius, Sister M., Incarnate Word College, San Antonio, Texas; 9/1/67-8/31/68 (Renewal); $75,739 (SRS)

This research focuses on the early diagnosis and proper school placement of mentally retarded children from low income families. Early diagnosis and proper placement, a multidisciplinary approach to diagnostic evaluation, parental counseling, and stimulation of interest of other professionals in the community in the field of mental retardation are anticipated.

1622. THE NEW HOPE CENTER (MR-3103A67); Cheshire County Association for Retarded Children, Keene, New Hampshire; 7/1/67-6/30/68 (Initial); $16,632 (SRS)

(No abstract supplied)

1623. TO ESTABLISH A CLINIC IN MISSOULA, MONTANA FOR THE DIAGNOSIS AND THE EVALUATION OF THE RETARDED IN WESTERN MONTANA, AND PROVIDE A TRAINING GROUND FOR PROFESSIONAL PERSONS IN THE RETARDATION FIELD (MR-2804A67); Soules, Mary E., Montana State Board of Health, Helena, Montana; 7/1/66-6/30/67 (Initial); $60,975 (SRS)

This research, in addition to the purpose stated in the title, also proposes to: provide a program for training of a person to work with the retarded throughout the State; provide maximum coordination and communication services in programs which may be used to assist a retarded child or adult at the community level; and to encourage communities to establish facilities for the retarded.

1624. TO ESTABLISH A REGIONAL INFORMATION-REFERRAL CENTER IN GREAT FALLS FOR HANDICAPPED CHILDREN TO DEMONSTRATE ITS FEASIBILITY IN SERVING A LARGE PREDOMINATELY RURAL AREA (MR-2808A67); Montana State Board of Health, Helena, Montana; 7/1/67-6/30/68 (Initial); $52,226 (SRS)

(No abstract supplied)

1625. TRAINING AND RESEARCH FACILITY IN CHILD WELFARE (SF-200); Western Reserve University, Cleveland, Ohio; 7/1/67-6/30/68 (Renewal); $178,476 (SRS)

(No abstract supplied)

1626. TRANSITION-BUFFER UNIT FOR MENTALLY RETARDED (MH-2166-02); Riddle, Joseph I., Western Carolina Center, Morganton, North Carolina; 9/66 (Renewal); $18,898 (NIMH)

This research involves the provision of more intensive treatment programs for children caught between existing programs, and the movement of children to a transitional sub-unit where more and varied treatment resources are available.

1627. TRI-STATE COMPREHENSIVE PLANNING AND IMPLEMENTATION FOR MENTAL RETARDATION (MR-3706B67); Milliken, Sewall O., Public Health Foundation, Cincinnati, Ohio; 7/1/67-6/30/68 (Renewal); $56,906 (SRS)

This research proposes to study the possibility of implementing the recommendations of the Comprehensive Mental Retardation Projects in Ohio, Kentucky, and Indiana on a tri-State basis. If feasible, procedures will be established for the use of the regional tri-State facilities and services by mentally retarded persons, irrespective of State boundaries.

1628. UNIFIED APPROACH IN MENTAL RETARDATION WITH NEUROLOGICAL AND SENSORY DISORDERS (N-0902E67); Georgetown University, Washington, D. C.; 4/1/67-3/31/68 (Renewal); $1000,650 (SRS)
(No abstract supplied)

1629. VERBAL MEDICATION PROCESS IN THE CEREBRAL PALSIED (6686-01); Wilson, Barbara C., Institute for the Crippled and Disabled, New York, N. Y.; 1/66-12/66 (Initial); $3,266 (NINDB)
This research is designed to explain the possbile relationship between the use of language in terms of verbal mediation, specifically labelling, and certain aspects of perceptual and congnitive behavior in the cerebral palsied as compared to the non-neurologically impaired child.

1630. PARANOID AND AFFECTIVE PSYCHOSIS: A FAMILIAL STUDY (M-2000) (83) (MH) (2); Bower, Philip A., Elgin State Hospital, Elgin, Illinois;
This research proposes to compare the family relationships of paranoid schizophrenic patients and psychotic agitated depressive patients, working toward clarifying the psychogenic aspects of the differences. Data for comparison consist in material taken by long and repetitious interviews with patients, parents and siblings by our psychiatric social worker and the results of a battery of objective and projective tests given by psychologists to the same subjects.

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SUBJECT INDEX ON RESEARCH AND DEMONSTRATION GRANTS

Subject Index of Research and Demonstration Grants

Aberrant adaptive development, 1130
Abnormal movements, production, neurologic origin, 1080
ABO erythroblastosis, immunologic studies, 1009
Abuse, child, epidemiologic study, 1579
Academic learning, see Learning, academic
Acidemia, hypoxemia and capillary permeability, 1168
Action plan, community organization, for mentally retarded, 1441
Activity level and behavior pathology in children, 1290
Adaptive behavior and EEG, 1267
Adaptive behavior, psychiatric problem, 1497
Adjustment and achievement in desegregated school, 1335
Admission program, short term, 1614
Adolescents
  educable retarded, curiosity, behavior, 1380
  effectiveness of placement-oriented program, 1461
  male retardated, disturbed, habilitation, 1309
  psychiatric treatment program, 1513
  social perception and pre-vocational readiness, educable retarded, 1376
  vocational development, 1401
  word association norms, 1229
  work experience, 1432
Adrenal function in hydrocephalus, 1201
Adrenergic transmitter, psycholpharmacologic studies, 1232
Adults
  activity center, 1544
  day care activity program, 1561, 1562
  from back wards, severely retarded, training, 1364
  health needs, 1526
  institutionalized mentally retarded, program for, 1434
  institutionalized, transitional program, 1436
  satellite day centers, 1611
  seriously handicapped, independent living rehabilitation services, 1460
  severely retarded, community programming, 1539
  severely retarded, habit training, 1419
Aging retardate
  improved care, 1500
  neuropathology, 1251
Albumin binding capacity and kernicterus, 1490
Ambulatory severely retarded
  program, 1328
  team management, 1519

Amino acids
brain, effect of diet, 1053
disorders in cerebral, diseases, 1072
effect on metabolism, EEG, and behavior, 1146
flux in developing brain, 1105
in PKU, CNS and nutritional influences, 2254
in PKU, intestinal transport, 1174
interrelations in human metabolic disease, 1106
metabolism, abnormal, 1102
metabolism, aromatic, in retarded children, 1108
metabolism, pteridine co-factors, 1233
neurochemical changes, 1186
oxidation in immature brain, 1061
Ammonia toxicity, intracerebral, 1257
Anatomy, brain, and behavior, 1163
Aneuploidy, human chromosomal, 1279
Animal studies, 1114
Anomalies, congenital, chromosome identification, 1271
Anoxia, effects on brain metabolism in newborn, 1054
Anti-Rh sensitization and fetal insulin, 1159
Anti-Rh serum for prevention, 1315
Aphasia, psycholinguistic methods for classifying, 1358
Aplysia, neural mechanisms of learning and behavior, 1250
Apnea, in newborn mammals, factors in survival, 1156
Articulation therapy, factors in effectiveness, 1385
Articulation therapy, sensory-motor, 1584
Atelectasis, neonatal, perinatal vascular causes, 1194
Audiology and speech pathology improvement program, 1518
Audiometrics, EEG, in severely retarded, 1145
Autonomic activity in mentally defectives and normals, 1109
Autonomic dysfunction in phenylketonuria, 1110

Bacteriuria in pregnancy, asymptomatic, 1313
Bedridden retardates, improvement of services, 1505
Behavior
adaptive, and EEG in mental retards, 1267
adaptive, and psychiatric problem, 1497
children's, delay of reinforcement, 1138
curiosity, educable retarded, 1380
delayed feedback and conformity, 1036
effect of amino acids, 1146
evaluation program for retarded children, 1289
experimental analysis in retardates, 1297
following rearing in a random environment, 1112
genetics, 1163
genetics, center for human, 1270
in progeny of underfed mothers, 1113
neonatal sucking, 1111

neural mechanisms in Aplysia, 1250
pathology and activity level in children, 1290
physical, social and emotional, necessary for classroom admission and retention, operant conditioning study, 1373
problems interferring with academic learning and adjustment, remedial guidance, 1391
problem solving, influencing factors, 1384
problem solving, normal and mentally retarded children, 1403
staff, and mental retardate rehabilitation, 1425
Behavioral
classification of neurological patients, 1546
correlates of neurophysiological variables, 1230
development, neonatal brain damage and, 1599
development, radiation, 1081
responses to stimuli, 1277
shaping and reward training, 1515
study of mentally retarded children, 1294
Bender-Bip study with mentally retarded, 1295
Bile pigments, enzymatic formation, 1056
Bilirubin
intoxication, acute, effects on the CNS, 1241
metabolism and kernicterus, altering by drugs, 1042
metablolism, development, 1140
Biochemical
and animal studies, 1114
and molecular basis of mental disease, 1115
causes of mental retardation, 1116
correlates of chromosomal anomalies, 1117
defects in mentally retarded children, 1118
defects related to congenital anomalies, 1119
development of surfactant of lung, 1120
disturbances in Down's syndrome, 1121
effects of human chromosomal aberrations, 1122
investigation of mental retardation, 1123
studies in human genetics, 1275
studies of myelination, 1234
systems in experimental mental deficiency, 1124
Biochemistry
comparative, of mucolipids, 1049
of lipidoses, 1243
of sphingosine and sphingolipids, 1235
Biologic and environmental factors in child development, 1010
Biologic effects of ABO hetero-specific pregnancy, 1125
Biosynthesis of pulmonary surface active lipids, 1126
Births control of phenylketonurics from, 1498
Blind and deaf retarded children, training program, 1363
Blind children, disturbed, mental health center, 1492

Blood
disorders, neonatal, 1217
grouping studies, 1011
groups, inheritance study, 1011
Brain
anatomy and behavior, genetics, 1163
cystathionine metabolism, 1040
damage and hyperoxygenation in mental deficity, 1043
damage, neonatal, and behavioral development, 1599
damage, perinatal, etiology and consequences, 1245
developing, amino acid flux, 1105
developing, phosphoethanolamine metabolism, 1077
disease, inherited developmental, pathogenesis, 1253
effect of diet on lipids and amino acids, 1053
electrical activity of infants, development, 1571
enzyme activity, 1057
function and the metabolism of macromolecules, 1236
functions in metabolic disorders, 1237
ganglioside structures, 1087
histology in perinatal period, 1259
histopathologic patterns in perinatal patterns, 1246
immature, glucose and amino acid oxidation, 1061
impedance, local, analysis, 1302
lipid composition in pathological states, 1247
lipids of fetus and young animals, 1044
metabolic diseases, 1067
metabolism and systemic diseases, 1045
metabolism, anoxia effects in newborn, 1054
metabolism, role of thyroid gland, 1092
normal and diseased copper proteins in, 1088
prenatal and postnatal monoamines, 1079
protein synthesis, 1046
Buffer unit, transition, for mentally retarded, 1626

Calorimetry, direct and indirect in newborn, 1052
Capillary permeability and hypoxemia and acidemia, 1168
Carbohydrate metabolism and teratology in guinea pigs, 1127
Carbohydrate metabolism in neonate, 1128
Case-finding and day care services for totally dependent child, 1556
Case information service, interagency, 1594
Catecholamine metabolite excretion in neonatal stress, 1129
Cellular aspects of human genetics and immunology, 1269
Central nervous system
and nutritional influences of amino acids in PKU, 1263
disease, diffuse degenerative, 1089
effects of acute bilirubin intoxication, 1241
fetal-infantile, energy supply disorders, 1055
function, and vitamin B_6, 1262

lesions, experimental and psychosomatic maturation, 1152
malformation, pathogenesis, 1690
sequelae of prematurity, 1131
Cerebral cortex, histochemical studies, 1255
Cerebral cortex, phylogeny and ontogeny, 1078
Cerebral disease, amino acid disorders, 1072
Cerebral enzymes in normal and convulsive states, 1238
Cerebral neurons, ontogenesis of activity, 1073
Cerebral palsied infants, mitigation of mental retardation through early care and management, 1598
Cerebral palsied, verbal mediation process, 1629
Cerebral palsy
clinicopathologic correlations, 1549
collaborative project 1047,1048
collaborative study, 1550-1554
effects of extrapyramidal lesions, 1499
pathogenesis, 1086
perinatal factors in origin, 1074, 1075
Cerebrovascular response to embryonic overgrowth, 1132
Chemical study of congenital mental defects, 1133
Child
abuse, epidemiologic study, 1579
and the state, 1618
care services, development, 1343
development and training services, 1324
development, biologic and environmental factors, 1010
development center, work-related, 1545
development, research, 1609
experience enrichment project, 1338
rearing, collaborative cross-cultural study, 1316
rearing practices for mentally retarded, parent education, 1602
stimulation through parent education, 1576
victim of sex crimes committed by adults, protection, 1606
welfare, training and research facility, 1625
Children, dependent, plan to aid development, 1339
Chondroitins, urine screening test, 1083
Chromatographic screening, urinary, in mentally retarded children, 1565
Chromosomal
aberrations, human, biochemical effects, 1122
aberrations, etiology, 1020
abnormalities, human, 1062
aneuploidy, human, 1279
anomalies, biochemical correlates, 1117
anomalies, human, 1165
etiology of neurological diseases, 1071
Chromosomes
human, effects of viruses, 1148
identification in congenital anomalies, 1271
meiotic and mitotic in man, 1268
mammalian, genetic markers in vitro, 1099

study, human, aided by computer, 1285
Circulatory studies in infants, 1181
Classical conditioning in retardates and normals, 1341
Classical conditioning of eyemovements in retardates, 1134
Class size, factor in achievement of educable retarded, 1377
Clinic, 1-day diagnostic and evaluation, 1601
Clinical
and laboratory studies of rubella, 1548
and laboratory study of mentally retarded and neurologically handicapped children, 1529
research center for, mental retardation, 1025
statistics and comparable obstetric gynecologic, and infant terminology, development, 1572
workshop in mental health and psychiatric nursing for instructors in schools of practical nursing, 1320
Clinicopathologic correlations in cerebra palsy, 1549
Cognitive
abilities, growth in young children, 1041
development of culturally deprived and functionally retarded Negro preschool child, 1388
differentiation and lower SES child rearing, 1178
function in Turner's syndrome, 1216
growth in disadvantaged preschoolers, 1536
training of retarded children, 1378
Communication
disorders, 1137
disorders, services in community program for mentally retarded, 1613
disorders, therapy, 1361
improvement and counseling service to retarded children, 1592
Community
adjustment of discharged retardates, successful, 1308
adjustment program for sheltered care, 1404
and hospital psychiatric service coordination, 1396
approach to complete services for retarded, 1435
approach to management of dental disease among mentally retarded, 1527
based services for the retarded, 1442
day care program, 1555
living, pre-vocational exploration, 1423
living with recreation activities, 1424
organization action plan for mentally retarded, 1441
placement, intensive program, 1420
programming for the severely retarded adult, 1539
program services for communication disorders, 1613
project leaders, training non-professional, 1429
resources, improved use, 1415
service center, mental retardation, 1537
service demonstration project for mentally retarded in rural area, 1528

services for mentally retarded, master plan, 1567
Comprehensive evaluation of mentally retarded, 1296
Computer aided human chromosome study, 1285
Conditioning, classical, in retardates and normals, 1341
Conditioning, operant, of retardates, 1350
Conditioning, operant, study of physical, social and emotional behavior necessary for classroom admission and retention of retarded children, 1373
Congenital
anomalies, biochemical defects, 1119
anomalies, chromosome identification, 1271
anomalies in man, multiple, cytogenetics, 1014
diseases, cytogenetic studies, 1273
malformations in mammals, 1135
mental defects, chemical study, 1133
rubella, chronic, 1272
Consultation and evaluation service for mental retardation, 1581
Convulsive agents, mode of action, 1508
Coordination center for retarded and handicapped, 1531
Coordinator of services for mentally retarded, 1559
Copper proteins in normal and diseased brain, 1088
Cortex, cerebral, histochemical studies, 1255
Cortex, cerebral, phylogeny and ontogeny, 1078
Cortical dendrites, 1239
Cortical direct current changes, contingent, 1136
Cortical-neuron proliferation, prenatal stimulation, 1204
Counseling service program for retarded children, 1592
Coxsackie virus infection in pregnancy, 1034
Crimes, sex, committed by adults, protection of child victims, 1606
Cry-sound analysis, nenonatal, in pediatric diagnosis, 1284
Cultural aspects, 1040
Culturally deprived
and functionally retarded Negro preschool child, intervention in cognitive development, 1388
children and parents, group day care program, 1334
infants, intellectual stimulation, 1039
neighborhoods, redirection of school nursing services, 1494
preschool children, sensory-perceptual language training to prevent school learning disabilities, 1392
Culturally determined retardation, prevention, 1318
Curriculum and methods of instruction, elementary level educable retarded, 1369
Curriculum center in social learning for educable mentally retarded, 1367
Curriculum development for work, experience and occupations for educable retarded, 1374
Cystathionine metabolism in brain, 1050
Cytochemistry of developing synapses, 1249
Cytogenetics
human, 1166
in mental defectives with anomalies, 1013
multiple congenital anomalies in man, 1014

of embryonic maldevelopment, 1288
studies of human malformations, 1274
studies in congenital diseases, 1273
studies, mental retardation,1015
Cytological and biochemical studies in human genetics, 1275

Day Care
activity program for retarded adults, 1561
activity program for retarded adults, 1562
center for severely retarded children, 1563
center for young children, 1569
center, personal development, 1603
health needs and health care of children, 1532
program, community, 1555
program, cooperative regional apprach, 1530
program for mentally retarded, 1557
program, group, for culturally deprived children and parents, 1334
project, 1547
services for totally dependent child, 1556
Day centers, satellite, for retarded adults, 1611
Day programs for profoundly to moderately retarded adults, 1558
Daytime care of infants, supplemental, 1617
Daytime development center project for suburban community, 1533
Deaf and blind retarded children, training program, 1363
Defective delinquent, institution program, 1407
Delayed auditory feedback and conformity of behavior, 1036
Delinquent, defective, institution program, 1407
Delinquent retardates, rehaibilitation, 1428
Dendrites, cortical, 1239
Dental disease among the mentally retarded, community approach to management, 1527
Dependent children, plan to aid development, 1339
Deprived males in institution, program improvement, 1329
Dermatoglyphics in mental retardation, 1276
Desegregated school, adjustment and achievement, 1335
Determinants of learning in the mentally retarded, 1342
Detoxification mechanisms, fetal and neonatal, 1157
Development, adaptive, normal and aberrant, 1130
Developmental diagnostic studies in mental deficiency, 1139
Developmental program for severely retarded, 1322
Developmental recreation program for mental retardates, 1568
Diabetes in mother, neurological development of infant, 1026
Diagnosis
and evaluation clinic, and provision of training ground for professional persons in retardation, 1623
developmental, mental deficiency, 1139
differential, use of programmed language training in severely retarded children, 1400
of fetal intrauterine malnutrition, 1574

Diagnostic
and demonstration clinic in mental retardation, 1575
and evaluation clinic, 1-day, 1601
evaluation brief care program, 1291
evaluative and preventive services, improvement and expansion, 1621
laboratory for mental retardation, 1535
Diet, effect on lipids and amino acids of brain, 1053
Diet, premature infants, 1151
Diet, protein effect on premature infant, 1016
Digestion, storage disease, 1256
Direct current changes, cortical contingent, 1136
Discrimination learning, techniques facilitating, 1310
Discrimination reversal performance across different levels of mental retardation, 1379
Disturbed blind children, mental health center, 1492
Disturbed children, remediation, 1360
Disturbed male retardates, habilitation, 1409
DNA, effect on embryonic cephalic terata, 1147
DNA status, tetraploid, of Purkinje cells, 1258
Dormitory services, concentrated, 1325
Down's syndrome, biochemical disturbances, 1121
Down's syndrome, epidemiology, 1097
Down's syndrome, see also Mongolism
Drug substrate, metabolism, by human placenta, 1185
DVR and public schools, coordinated program for mentally retarded, 1408
Dyslexia, intermodal transfer, 1173

Educability of mentally retarded children, classifying characteristics, 1306

Educable retarded
application for employment and for seeking sucess, 1431
class size and teacher aides, factors in achievement, 1377
curiosity behavior, 1380
curriculum and methods of instruction for elementary levels, 1369
curriculum center in social learning, 1367
curriculum development for work, experience, and occupation, 1374
effects of intensive training program on motor skills, 1375
effect of special class placement on self-concept and ability, 1397
factors in effectiveness of articulation therapy, 1385
home economics program planning, 1357
learning potential, 1348
relationships between intentional and incidental learning, and type of reward, 1398
social perception and pre-vocational readiness, effects of 3 experimental curriculum units, 1376
teaching reading to, 1382
verbal learning and retention, influence of advance organizer, 1386
vocational preparation and placement program for high school students, 1430

Educational remediation, use of programmed language training in severely retarded children, 1400
Educational test of learning potential hypothesis with adolescents, 1304
Education
comparison of graduates from 2 types of high school programs, 1370
information and referral service system, development and implementation, 1619
instructional materials center, 1393
parent, early child stimulation, 1576
parent, in child rearing practices for mentally retarded, 1602
physical, development or individual potential of trainable retarded, 1573
physical, program for trainable mentally retarded, 1395
program extension for moderately retarded, 1344
relative effectiveness of classroom teachers and programmed instruction in teaching selected arithmetic concepts, 1399
services, special, and vocational rehabilitation, coordinated program for mentally retarded, 1443-1457
special, and vocational rehabilitation for mentally retarded youth, 1433
special class instruction for mentally retarded, utilizing master teachers and in-service educators, 1381
teacher-initiated step-by-step sequences in classrooms for educable retarded, 1368
use of compressed speech with educationally retarded, 2371
Electrical activity, brain of infant, development, 1571
Electrocardiogram, fetal, electronic evaluation, 1278
Electroencephalic studies in newborn and young infants, 1242
Electroencephalogram (EEG)
and adaptive behavior in mental retards, 1267
audiometrics in severely retarded, 1145
correlates of neuromorphology, human neonatal, 1280
effect of amino acids, 1146
patterns in children, longitudinal study, 1596
potentials, evoked, premature infants, 1151
responses to stimuli, 1277
Electronic evaluation of fetal EGG and heart rate, 1278
Electron microscopy of developing human lung, 1149
Electron microscopy of lipidoses, 1243
Electron microscopy of nutritional encephalopathy, 1244
Electrophoresis, high voltage, development of uses, 1142
Electrophysicology of normal and abnormal children, 1150
Embryo, cytogenetics of maldevelopment, 1288
Embryonic cephalic terata, effects of RNA and DNA, 1147
Embryonic overgrowth, cerebrovascular response, 1132
Emotional behavior necessary for classroom admission and retention, operant conditioning study, 1373
Emotional conditioning, perceptual factors, 1300
Employment

application among educable mentally retarded,1431
of mentally retarded, 1463
out-patient supervised janitorial services employing mentally retarded, 1481
terminal, in residential sheltered workshop, 1427
Encephalitis of rats, viral hemorrhagic, 1094
Encephalopathy, nutritional, electron miscroscopy,1244
Energy supply disorders affecting the fetal infantile CNS, 1055
Enrichment project, child experience, 1338
Environmental factors in child development, 1010
Environmental lead intoxication in children, 1018
Environmental stimulation program for nonambulatory patients, 1540
Environment, enriched, for young retarded patients, 1345
Enzymatic formation of bile pigment, 1056
Enzymatic formation of pyridoxal phosphate, 1260
Enzymes
activity in brains of infant rats, 1057
cerebral, in normal and convulsive states, 1238
inhibitors, and induced experimental phenylketonuria, 1153
liver, development, 1143
studies, cultivated fetal cells, 1019
Epidemiology of mental retardation in a rural county, 1096
Erythroblastosis, ABO, immunologic studies, 1009
Erythroblastosis, fetal, amniotic fluid constituents, 1107
Erythroblastosis fetalis, experimental, 1214
Erythrocytes, fetal, transplacental passage, 1224
Evaluation and consultation service for mental retardation, 1581
Evaluative, diagnositic and preventive services, improvement and expansion, 1621
Exceptional children,north country center, 1500
Experimental analysis of behavior in retardates, 1297
Eyemovements, classical conditioning, 1134

Family unit, impact of law upon mental, physical, and moral health, 1620
Federal program of mental retardates, state DVR role in implementation, 1485
Fellowship for physicians in mental retardation, 1631
Fetal
and neonatal detoxification mechanisms, 1157
cells, cultivated, enzyme studies, 1019
distress and associated placental changes, 1158
ECG and heart rate, electronic evaluation, 1278
erythroblastosis, amniotic fluid constituents, 1107
erythrocytes, transplacental passage, 1224
heart monitoring in labor, 1228
infantile CNS, energy supply disorders, 1055
insulin and anti-Rh sensitization, 1159
intrauterine malnutrition, 1574

life study, role of prenatal influences, 1588
lung fluid, 1160
lung, vascular resistance control, 1219
Fetoplacental function, human, lab indices, 1281
Fetus and young animals, brain lipids, 1044
Fetus, human, growth retardation, 1164
Fetus, tissue heparin levels, 1222
Films
"Placement of the Handicapped," 1464
"The Mentally Retarded," for vocational rehabilitation counselors, 1465
"You're It," training film for recreation leaders, 1489
Folatos and derivatives in phenylketonuria, 1209
Functional training program, 1346
Functioning retardate, higher, programming for, 1355

Galactosemia genetics, incidence and pathophysicology, 1021
Galactosemia screening of newborn in community, 1264
Galactosides, nutritional availability, 1188
Ganglioside structures of brain, 1087
Gene markers, red cell and serum factors, in children, 1030
Genes, structural and developmental in children, 1031
Genetics
and immunology, cellular aspects, 1269
behavior, center for human, 1270
chromosomal aberrations, etiology, 1020
chromosomal aberrations in mental defectives, 1014
galactosemia, incidence and pathophysiology, 1021
factors in human sex development, 1022
genetically-determined neurological diseases, 1084
human, 1215
human, cytological and biochemical studies, 1275
Lp and associated mutations, 1065
mammalian chromosomes as genetic markers in vitro, 1099
of brain anatomy and behavior, 1163
studies in mental retardation, 1015
Glucose oxidation in immature brain, 1061
Greater Cleveland mental retardation development project, 1467
Group care of infants, 1617
Group day care program for culturally deprived children and parents, 1334
"Group" social concept development among mentally retarded, 1396
Growth
cognitive, in disadvantaged preschoolers, 1536
effect on bulk RNA and a new RNA fraction, 1240
of mentally retarded children, 1189
retardation of the human fetus, 1164
steroid metabolism, 1212
Guidance, remedial, of young retarded children with behavior problems
interferring with academic learning and adjustment, 1391

Habilitation
and motivation program, intensive, 1417
home training program, 1414
of disturbed adolescent male retardates, 1309
of retarded, improved program, 1406
of severely retarded children, intensive, 1418
physical, for severely retarded, 1421
program for male retardates, 1410
program for the severely retarded, 1405
programmed, severely retarded children, 1354
services, psycho-sensory, 1504
vocational, and self-care development, 1426
Habilitative planning severe to moderate retardates, 1411
Habit training of severely retarded adults, 1419
Handicapped children, prospective study, 1541
Hashimoto's struma and congenital hypothyroidism, 1023
Health care patterns among low income families, 1589
Health needs and health care of children in day care, 1532
Health needs of adult retardate, 1526
Hearing and speech center, 1517
Heart, fetal, monitoring during labor, 1228
Heart, prenatal and postnatal monoamines, 1079
Heart rate, fetal, electronic evaluation, 1278
Hemolytic disease of new born, immunologic studies, 1009
Hemolytic disease of new born, prevention, 1314
Heparin, tissue, levels in fetus and newborn, 1222
Higher functioning retardate, programming for, 1355
High-risk infant follow-up study, 1590
High school programs for mentally handicapped, comparison of graduates from 2 types, 1370
High voltage electrophoresis, development of uses, 1142
Histidinemia and other metabolic disorders, 1321
Histochemical studies on cerebral cortex, 1255
Histology, brain, perinatal period, 1259
Histopathologic patterns in brain of perinatal period, 1246
Home bound mentally retarded children, new pathways for services, 1564
Home economics, program planning for educables, 1357
Home living training program, 1414
Home training program for mentally ill children, 1491
Hospital
and community psychiatric service, coordination, 1496
improvement, 3 projects, 1332
improvement plan: prevocational training, 1412
improvement plan: recreational department, 1413
improvement, university collaboration, 1333
Human
chromosomal anomalies, 1165
cytogenetics, 1166
development, research, 1610
genetics, 1215
skull, functional analysis, 1060

Hyaline membrane disease, plasmin effect, 1521
Hydrocephalus, pituitary-adrenal function, 1201
Hydroxybutyric acid, metabolism, 1068
Hyperbilirubinemia in newborn, 1090
Hyperbilirubinemia, new born, red cell changes, 1206
Hyperlysinemia, study of lysine metabolic pathway, 1167
Hyperoxygenation in mental deficit, 1043
Hypothyroidism, congenital, and Hashimoto's struma, 1023
Hypoxemia, acidemia and capillary permeability, 1168
Hypoxia, metabolism and neonatal thermoregulation, 1169
Hypoxia, tissue metabolism in newborns, 1223

Immunological abnormalities of newborn, 1187
Immunology, cellular aspects, 1269
Impedance, brain, analysis, 1304
Implementation grant, Kennedy Center, Peabody, 1591
Inborn errors, inhibition assay, 1064
Independent
  life, preparation for, 1422
  living, improvements, 1416
  living oriented activities for retarded, 1538
  living rehabilitation services program for seriously handicapped mentally retarded adults, 1460
Individual potential development of trainable retarded through physical education, 1573
Industrial training resources in rehabilitation, 1468
Infants
  brain electrical activity, development, 1571
  care projects, maternal and, evaluation, 1586
  cerebral palsied, mitigation of mental retardation through early care and management, 1598
  development, perceptual experience, 1192
  electroencephalographic studies, 1242
  group care, 1617
  hererozygous for PKU, study, 1033
  high-risk, follow-up study, 1590
  intellectual stimulation of culturally deprived, 1039
  metabolic and circulatory studies, 1181
  neurological development, mother with diabetes, 1026
  premature, added stress and metabolic response, 1104
  premature effect of dietary protein, 1016
  premature, effect of maternal contact on development, 1337
  premature, evoked EEG potentials and diet, 1151
  premature, intermediary metabolism, 1172
  premature, sleeping and waking states, 1286
  physiologic studies, 1200
  psychophysiological systems, 1170
  rats, experimental phenylketonuria, 1154
  sensory discrimination and learning, 1612

supplemental daytime care, 1617
vocalizations, 1220
Infancy and childhood, neurological and sensory disorders, 1553-1556
Infancy, mental retardation causes, 1012
Infetious teratogenesis, mechanisms study, 1032
Information-education and referral service system, development and implementation, 1619
Inherited diseases in children, detection, 1566
Inhibition assay, detection and study of inborn errors, 1064
Inkblot perception and personality, 1297
Institutionalization of mentally retarded, plan to reduce, 1323
Institutionalized retarded, program development, 1353
Institutional resources, improved use, 1415
Insulin, fetal, and anti-Rh sensitization, 1159
Intellectual development of lower-class Puerto Rican children in New York City, 1305
Intellectual development research program, 1207
Intellectual training and school performance, 1336
Intensification of research in mental retardation, 1593
Interagency case information service, 1594
Interagency mental retardation program, 1607
Interdisciplinary team for professional training and provision of services to handicapped children, evaluation, 1585
Intermodal transfer in normal and dyslexic subjects, 1173
Intervillous space PO_2, studies, 1287
Intestine, transport of amino acids in PKU, 1174
Intracellular transport, storage disease, 1256
Intracerebral ammonia toxicity, 1257
Intrauterine malnutrition, fetal, diagnosis, 1574
Isoimmunization, pregnancy, in mouse, 1203
Isoimmunization with anti-Rh serum, prevention, 1315
Isosensitization caused by pregnancy or transfusion, 1176

Janitorial services employing mentally retarded, out-patient supervised, 1481

Juvenile processes, law, mental disorder, and, 1595

Kernicterus
albumin binding capacity, 1490
altering by drugs, 1042
experimental, factors influencing, 1155
production in newborn rabbits, 1029
Kindred patterns, mentally retarded and control, 1098
"KLH" child development center, evaluation, 1582
Krabbe's disease, 1051

Lab indices of human fetoplacental function, 1281
Labor, continuous fetal heart monitoring, 1228

Language skills in retarded children, 1503
Language training, programmed, use in differential diagnosis and
educational remediation among severely retarded children, 1400
Language training, sensory-perceptual, to prevent school learning
disabilities in culturally deprived preschool children, 1392
Law, impact upon mental, physical, and moral health of family unit, 1620
Law, mental disorder and juvenile processes, 1595
Law, mentally retarded and, 1319
Lead intoxication in children, environmental, 1018
Learning
academic, interferring behavior problems, remedial guidance, 1391
and perception, effect of sensorimotor activity in neurologically
handicapped child, 1577
and problem solving behavior, influencing factors, 1384
and transfer in discriminations, 1177
and transfer processes in mental defectives, 1299
deficits and neurological findings in preschool children, 1265
determinants in the mentally retarded, 1342
disabilities, prevention by sensory-perceptual language training, 1392
discrimination, 1310
in infants, 1612
intentional and incidental, relationship to type of reward in preschool
educable mentally retarded, 1398
neural mechanisms in Aplysia, 1250
patterns of mental retardates, 1394
personality and, in retarded children, 1351
potential among the educable retarded, 1348
potential hypothesis with adolescents, educational test, 1304
research center in human, 1103
social, educable retarded, 1367
verbal, influences of advance organizer, 1386
verbal, stimulus factors, 1213
Linguistic analysis of verbal interactions in special classes, 1389
Lipidoses, electron microscopy and biochemistry, 1243
Lipid composition of brain in pathological states, 1247
Lipids, biosynthesis of pulmonary surface active, 1126
Lipids, brain, effect of diet, 1053
Lipids, brain, of fetus and young animals, 1044
Liver enzymes, development, 1143
Longitudinal and related psychohormonal studies, 1282
Low income families, health care patterns, 1589
Lp and associated mutations, 1065
Lung
developing human, electron microscopy, 1149
fetal, vascular resistance control, 1219
fluid, fetal, 1160

surfactant, biochemical development, 1120
surfactant, origin and identity, 1179
ultrastructural studies, 1226
Lysine metabolic pathway, 1167

Macromolecules, metabolism, and brain function,1236
Maldevelopment, embryonic, cytogenetics, 1288
Malformations
central nervous system, pathogenesis, 1190
congenital, 1135
human, cytogenetic studies, 1174
of nervous system, 1066
Malnutrition, early life, effect upon subsequent physical and mental development, 1017
Malnutrition, fetal intrauterine, diagnosis, 1574
Mammalian teratogenesis, ultrastructural studies, 1225
Maternal and infant care projects, evaluation, 1586
Maternal contact and premature infant development, 1337
Maturation, perinatal thyroid function, 1193
Maturation, steroid matabolism, 1212
Medical improvement and training of severely retarded, 1507
Medical services project, 1501
Meiosis in relation to mental retardation, 1218
Meiotic and mitotic chromosomes in man, 1268
Memory, immediate, retention in and retrieval from, 1301
Memory, short-term, in retarded child, 1311
Mental defectives, learning and transfer processes, 1299
Mental deficiency
and associated metabolic errors, 1183
and metabolic disorders, 1182
neuropathology, 1231
developmental, diagnostic study, 1139
experimental, biochemical systems, 1124
Mental disorder, law, and juvenile processes, 1595
Mental health, clinical workshop for instructors in pactical nursing schools, 1320
Mental health development in sparsely populated areas, 1317
Mental illness, neuropathology, 1231
Mental retardation and neurological diseases of children, study, 1616
Mentally retarded children, clinical and laboratory study, 1529
Metabolic
abnormalities in mental retardation, 1180
and other inherited diseases in children, detection, 1566
disease of brain, 1067
disease, human, amino acid interrelations, 1106

disorders and mental deficiency, 1182
disorders, brain functions in, 1237
disorders, histidinemia and, 1321
disorders in brain functions, 1237
errors associated with mental deficiency, 1183
response of premature infant, 1104
studies in infants, 1181
studies in mongolism, 1184
Metabolism
amino acid, abnormal, 1102
amino acid, aromatic, 1108
amino acid, pteridine co-factors, 1233
and neonatal thermoregulation, 1169
bilirubin, development, 1140
brain, and systemic diseases, 1145
brain, effects of anoxia in newborn, 1054
brain, role of thyroid gland, 1092
carbohydrate, in guinea pigs, 1127
carbohydarate, in neonate, 1128
cystathionine, in brain, 1050
effect of amino acids, 1146
gamma-hydroxybutyric acid, 1068
intermediary, inprematurе infants, 1172
of drug substrates by human placenta, 1185
of macromolecules and brain function, 1236
peripheral, of thyroxine, 1221
phenylalanine, in phenylketonuria, 1197
phosphoethanolamine, in developing brain, 1077
phospholipid, 1198
steroid, during growth and maturation, 1212
tissue, in newborns after hypoxia, 1223
Metropolitan critical areas project, 1597
Mid-life, antecedents of change in mentally retarded persons, 1307
Minerals in neurological and psychiatric illness, 1261
Mitotic chromosomes in man, 1268
Molecular basis of mental disease, 1115
Molecular neurobiology, 1248
Mongolism, metabolic studies, 1184
Mongolism, salivary gland physiology, 1210
Mongolism, urinary taurine and serum uric acid, 1227
Monoamines, prenatal and postnatal in brain and heart, 1079
Moral conduct of retardates, 1309
Moral judgment of retardates, 1309
Morphologic development, radiation, 1081
Morphology and cytochemistry of developing synapses, 1249
Motivation program, intensive, 1417

Motivational factors in the performance of retardates, 1349
Motor skills, effects of intensive training program of
  educable retarded, 1375
Mucolipids, comparative biochemistry, 1049
Mucopolysaccharides in neurological disorders, 1069
Mutations, see Genetics
Myelination, biochemical studies, 1234
Myelodysplasia, experimental, morphogenesis, 1091

Narcotics addicts, successful treatment, 1630
Negro preschool child, culturally deprived and functionally
  retarded, intervention in cognitive development, 1388
Neonatal
  assessments and follow-up of validations, 1283
  atelectasis, perinatal vascular causes, 1194
  blood disorders, 1117
  brain damage and behavioral development, 1599
  cry-sound analysis in pediatric diagnosis, 1284
  detoxification mechanisms, 1157
  EEG correlates of neuromorphology, 1180
  period, physiologic states, 1303
  sucking behavior, basic correlates, 1111
  stress, catecholamine metabolite excretion, 1129
  thermoregulation and hypoxia and metabolism, 1169
Neonate, carbohydrate metabolism, 1129
Nervous disorders, developmental, 1051
Nervous system, malformations, 1066
Nervous system, phenylalanine antimetabolite effect, 1076
Neural
  differentiation, immunochemical study, 1063
  mechanisms of learning and behavior, 1250
  tissue, physiologically active substances, 1254
  tube differentiation, influencing factors, 1059
Neurobiology, molecular, 1248
Neurochemical changes with excess amino acids, 1186
Neurogenesis, abnormal, fine structure, 1161
Neurological
  and sensory disorders, unified approach in mental retardation, 1628
  diseases, genetically determined, 1084
  diseases of children, study, 1616
  diseases of chromosomal etiology, 1071
  disorders in infancy and childhood, 1553-1554
  disorders, mucopolysaccharides, 1069
  disorders, neutron activation, 1252
  findings and learning deficits in preschool children, 1265
  illness, trace minerals, 1261
  origin, production of abnormal movements, 1080
  patients, behavioral classification, 1546
  status of children, factors affecting and methods for early
    recognition, 1587

Neurologically handicapped child, effect of sensorimotor activity on perception and learning, 1577
Neurologically handicapped children, clinical and laboratory study, 1529
Neuromorphology, human neonatal correlates, 1280
Neuron proliferation, prenatal stimulation, 1204
Neurons, cerebral, ontogenesis of activity, 1073
Neuropathology in mental illness and deficiency, 1231
Neuropathology of aging mental retardate, 1251
Neurophysiological variables, behavioral correlates, 1230
Neutron activation analysis in neurological disorders, 1252
Newborn
  direct and indirect calorimetry, 1052
  effects of anoxia on brain metabolism, 1054
  electroencephalographic studies, 1242
  galactosemia screening in community, 1264
  hemolytic disease, prevention, 1314
  hyperbilirubinemia, 1090
  hyperbilirubinemia, red cell changes, 1206
  infants, pulmonary physiology, 1205
  mammals, apneic, factors in survival, 1156
  physiologic studies, 1200
  rabbits, kernicterus production, 1029
  respiratory studies, 1208
  serum protein and immunological abnormalities, 1187
  tissue heparin levels, 1222
  tissue metabolism after hypoxia, 1223
New Hope Center, 1622
Nonambulatory mentally retarded, team treatment and evaluation, 1520
Nonambulatory residents, environmental stimulation service program, 1540
Nonprofessional personnel in Children's Bureau Retardation centers, 1604
Nursing services, school, redirection in culturally deprived neighborhoods, 1494
Nutrition and growth of mentally retarded children, 1189
Nutritional availability of galactosides, 1188
Nutritional influences of amino acids in PKU, 1263
Nutritional status of preschool children, evaluation, 1583

Obstruction and respiratory distress syndrome, 1027
Occupational training center, 1472, 1474-1479
Ontogeny of cerebral cortex, 1078
Operant conditioning of retardates, 1350
Operant conditioning study of physical, social and emotional behavior necessary for classroom admission and retention, 1373
Orphanage experience, intellectual development, 1038
Oxidation, glucose and amino acid, in immature brain, 1061

Paranoid and affective psychosis, a familial study, 1632
Parent education in child rearing practices for mentally retarded, 1602

Parent participation, influence on adaptation to vocational rehabilitation program, 1469
Pathogenesis, cerebral palsy, 1086
Pathogenesis of CNS malformations, 1190
Pathogenesis of inherited developmental brain disease, 1253
Pathology, experimental, 3 problems, 1093
Pediatric diagnosis, neonatal cry-sound, 1284
Peptides in human serum and urine, 1175
Peptiduria in mental retardation, 1509
Perception and learning, sensorimotor activity effects in neurologically handicapped child, 1577
Perception, inkblot, and personality, 1298
Perception, visual, analytic studies, 1292
Perceptual development and reading progress, 1191
Perceptual experience and infant development, 1192
Perceptual factors in emotional conditioning, 1300
Perinatal
  brain damage, etiology and consequences, 1245
  factors in origin of cerebral palsies, 1074, 1075
  period, brain histology, 1259
  period, histopathologic patterns in brain, 1246
  stress and prematurity, 1510
  thyroid function and maturation, 1193
Personal development day care center, 1603
Personality and inkblot perception, 1298
Personality and learning in retarded children, 1351
Phenylalanine and tryptophan hydroxylation in PKU, 1196
Phenylalanine antimetabolite effect on nervous system, 1076
Phenylalanine metabolism in phenylketonuria, 1197
Phenylketonuria (PKU)
  autonomic dysfunction, 1110
  CNS and nutritional influences of amino acids, 1263
  experimental, induced by enzyme inhibitors, 1153
  folates and derivatives, 1209
  infants with heterozygous inheritance, 1033
  in infant rats, experimental, 1154
  intestinal transport of amino acids, 1174
  like conditions, experimental model, 1058
  phenylalanine and tryptophan hydroxylation, 1196
  phenylalanine metabolism, 1197
Phenylketonurics controlled from birth, 1498
Phosphate, pyridoxal, enzymatic formation, 1260
Phosphoethanolamine metabolism in developing brain, 1077
Phospholipid metabolism during development, 1198
Phylogeny of cerebral cortex, 1078
Physical
  behavior necessary for classroom admission and retention, operant conditioning study, 1373

development program for mental retardation, 1511
education, development of individual potential of trainable retarded, 1573
education program for trainable mentally retarded, 1395
habilitation for severely retarded, 1421
restraint, enrichment program for reduction, 1493
therapy and recreational therapy improvement, 1512
therapy service program, 1502
Physiologic states in neonatal period, 1303
Physiologic studies of newborn human, 1200
Physiology, pulmonary, of newborn, 1205
Physiology, salivary gland, in mongolism, 1210
Pituitary-adrenal function in hydrocephalus, 1201
Placement of the Handicapped--film, 1464
Placement, special class, effect on self-concept and ability of educable retarded, 1397
Placenta
changes and fetal distress, 1158
exchange, with O_2 and CO, 1202
human, metabolism of drug substrates, 1185
permeability, physiological aspects, 1199
transfer of viral infections, 1035
transplacental passage of fetal erythrocytes, 1224
Plasmin, effect in hyaline membrane disease, 1521
PO2, intervillous space studies, 1287
Pregnancy
ABO heterospecific, biologic effects, 1125
asymptomatic bacteriuria, 1313
Coxsackie virus infection, 1034
high-risk, diagnostic-therapeutic studies, 1312
isosensitization, 1176
isoimmunization in mouse, 1203
Premature infant development, maternal, contact, 1337
Premature infants, sleeping and waking states, 1286
Prematurity, added stress and metabolic response, 1104
Prematurity, central nervous system sequelae, 1131
Prematurity, perinatal stress and, 1510
Prenatal effects of tranquilizers on offspring, 1028
Prenatal influences on fetal life, 1588
Pre-placement training program, 1352
Preschool child, psychological assessment, 1266
Preschool children, neurological findings and specific learning deficits, 1265
Preschool children, nutritional status evaluation, 1583
Preventive, diagnostic and evaluative services, improvement and expansion, 1621
Program for research center in mental retardation, 1605
Problem solving behavior, influencing factors, 1384

Problem solving behavior of normal and mentally retarded children, 1403
Problem solving strategies, development, 1144
Programmed reading method for mentally handicapped, 1340
Proteins
  and red cell factors, inheritance, 1024
  copper, in normal and diseased brain, 1088
  dietary, effect on premature infants, 1016
  serum, and immunological abnormalities, 1187
  synthesis, brain, 1046
Psychiatric
  case register, North Carolina tri-county, 1100
  illness, trace minerals, 1261
  nursing, clinical workshop for instructors in practical nursing schools, 1320
  problem, adaptive behavior, 1497
  service, coordinating community and hospital, 1496
  treatment program for adolescents, 1513
Psychohormonal studies, longitudinal and related, 1282
Psycholinguistic methods for classifying aphasia, 1358
Psychological assessment of the preschool child, 1266
Psychological causality, development of conceptions, 1141
Psychological testing booth, automated, 1293
Psychopharmacologic studies of adrenergic transmitter, 1232
Psychopharmacology unit, children's, 1495
Psychophysiological systems, infant, 1170
Psycho-sensory habilitation services, 1504
Psychosis, effective, paranoid and, 1632
Psycho-social treatment unit, 1514
Psychosomatic maturation, and experimental central nervous system lesions, 1152
Pteridine co-factors in amino acid metabolism, 1233
Public Health Service contract on mental retardation, 1482
Puerto Rican children in New York City, retardation in intellectual development, 1305
Pulmonary immaturity, functional aspects, 1162
Pulmonary physiology, newborn infants, 1205
Pulmonary surface active lipids, biosynthesis, 1126
Purkinje cells, tetraploid DNA status, 1258
Pyridoxal phosphate, enzymatic formation, 1260

Radiation and morphologic and behavioral development, 1081
Radiocopper and radioiron studies in Wilson's disease, 1082
Radioiron studies in Wilson's disease, 1082
Reading method, programmed, for mentally handicapped, 1340
Reading progress and perceptual development, 1691
Reading, teaching to educable retarded, 1382
Reasoning, moral judgment, and moral conduct of retardates, 1309

Recreation
activities with community living, 1424
for the handicapped, 1484
leaders training film--"You're It", 1489
program for mental retardates, 1568
program for retarded and multiple handicapped children, 1542
service to disabled children, 1578
Recreational Department, HIP, 1413
Recreational therapy, 1512
Referral and information-education service system, development and implementation, 1619
Red cell changes and newborn hyperbilirubinemia, 1206
Red cell and protein factors, inheritance, 1024
Red cell and serum factors, gene markers in children, 1030
Rehabilitation
of delinquent retardates, 1428
industrial training resources, 1468
mental retardate, staff behaviors, 1425
programs, organization factors and acceptance, 1480
school, for less able retarded adolescents, 1470
services, coordination through legally constituted joint public authority in large metropolitan area, 1458
services, program for seriously handicapped mentally retarded, independent living, 1460
see also Vocational rehabilitation
Regional information-referral center establishment in rural area, feasibility, 1624
Reinforcement delay, and children's behavior, 1138
Reinforcement functions in mentally retarded, 1359
Reinforcement, social or token, time perspective change in institutionalized mental retardates, 1402
Remedial guidance for behavior problems interferring with academic learning and adjustment, 1391
Remediation of disturbed and retarded children, 1360
Research in mental retardation, 1608
Research in mental retardation and child development, 1609
Research in mental retardation and human development, 1610
Resident training service, development, 1570
Residential centers, effects of differential experiences on retarded persons, 1462
Residential unit care, 1330
Respiration, initiation and control, term lambs, 1171
Respiratory distress syndrome, obstruction, 1027
Respiratory distress syndrome, ventilatory assistance, 1525
Respiratory studies in newborn, 1208
Restraint, physical,enrichment program for reduction, 1493
Retention in and retrieval from immediate memory, 1301

Retrolental fibroplasia, natural history, 1070
Reward training and behavioral shaping, 1515
RNA, a new fraction, effect of growth, 1240
RNA, bulk, effect of growth, 1240
RNA, effect on embryonic cephalic terata, 1147
Rubella, chronic congenital, 1272
Rubella, clinical and laboratory studies, 1548

Salivary gland physiology in mongolism, 1210
Schizophrenic and retarded children, appropriate use of
  pronouns and prepositions, 1383
Schools
  desegregated, adjustment and achievement, 1335
  drop-outs, effectiveness of placement oriented work program, 1461
  nursing services, redirection in culturally deprived neighborhoods, 1494
  performance and early intellectual training, 1336
  public, and DVR, coordinated program for mentally retarded, 1408
  public high, vocational training, 1487
  rehabilitation, inter-district, for less able retarded
    adolescents, 1470
Self-care development and vocational habilitation, 1426
Self-concept and ability of educable mentally retarded, effect
  of special class placement, 1397
Sensorimotor activity, effect on perception and learning in neurologically
  handicapped child, 1577
Sensory and neurological disorders, unified approach in mental
  retardation, 1623
Sensory discrimination and learning in infants, 1612
Sensory disorders in infancy and childhood, 1553-1554
Sensory-motor articulation therapy, 1584
Serum
  and red cell factors, gene markers in children, 1030
  and urine, human peptides, 1175
  protein, newborn, and immunological abnormalities, 1187
  uric acid in mongolism, 1227
Sex crimes committed by adults, protection of child victims, 1606
Sex development, human, genetic factors, 1022
Sheltered care, community adjustment program, 1404
Sheltered workshop, residential, terminal employment, 1427
Short term admission program, 1614
Short term memory in retarded child, 1211
Skull, human, functional analysis, 1060
Sleeping and waking states in premature infants, 1286
Social
  behavior, necessary for classroom admission and retention,
    operant conditioning study, 1373
  concept "group" development among mentally retarded, 1396

cultural aspects, 1040
development center, 1615
development program for Mental Retardation, 1516
learning for educable retarded, 1367
perception and pre-vocational readiness of educable retarded adolescents, effects of 3 experimental curriculum units, 1376
reinforcement, time perspective change in institutionalized mental retardates, 1402
skills improvement, programming, 1356
Socialization program for mildly retarded, 1327
Sociobehavioral study center for mental retardation, 1101
Socioeconomic class, influence on adaptation to vocational rehabilitation program, 1469
Socioeconomic groups and cognitive abilities, 1178
Sophistication assessment, 1311
Speech and hearing center, 1517
Speech, compressed, educationally retarded students, 1371
Speech pathology and audiology improvement program, 1518
Sphingolipids, biochemistry, 1235
Sphingosine, biochemistry, 1235
Staff behaviors and mental retardate rehabilitation, 1425
Staff development project, 1331
State DVR role in implementation of Federal program of mental retardates, 1485
State institutions for retarded, evaluation, 1580
Steroid metabolism during growth and maturation, 1212
Stimulation and care for severely retarded, maximal, 1506
Stimulation, toddler, 1362
Stimuli, EEG and behavioral responses, 1277
Stimulus cues, integration by normal and mentally retarded, 1387
Stimulus factors in verbal learning, 1213
Storage disease, intracellular transport and digestion, 1256
Stress effects, persistence, function of age, 1195
Successive discrimination reversal performance across different levels of mental retardation, comparison, 1379
Surfactant of lung, biochemical development, 1120
Surfactant, lung, origin and identity, 1179
Synapses, developing, morphology and cytochemistry, 1249
Systemic diseases and brain metabolism, 1045

Taurine, urinary, in mongolism, 1227
Tay-Sachs disease, 1085
Teacher aides, factor in achievement of educable retarded, 1377
Teaching
appropriate use of pronouns and prepositions in schizophrenic and retarded children, 1383
curriculum and methods of instruction, elementary level educable retarded, 1369

investigation of variables in teaching of specified objectives to mentally retarded, 1372
reading to the educable retarded, 1382
relationship between training, experience, and selected personality characteristics of teachers and progress of trainable mentally retarded children, 1390
relative effectiveness of classroom teachers and programmed instruction in teaching arithmetic concepts, 1399
special class instruction for mentally retarded, utilizing master teachers and in-service educators, 1381
teacher-initiated step-by-step sequences in classrooms for educable retarded, 1368
Team management of ambulant severely retarded, 1519
Team treatment and evaluation of non ambulatory mentally retarded, 1520
Terminology, obstetric, gynecologic, and infant, and clinical statistics, comparable, development, 1572
Terata, embryonic cephalic, effects of RNA and DNA, 1147
Teratogenesis, infectious, mechanism studies, 1032
Teratogenesis, mammalian, ultrastructural studies, 1225
Teratology, in guinea pigs, 1127
Testing booth, automated psychological, 1293
Tetraploid DNA status of Purkinje cells, 1258
Thermorgulation, neonatal, and hyposia and metabolism, 1169
Therapeutic pyramids using mentally retarded patients, 1560
Therapeutic residential facility for mentally retarded young adults in community, 1543
Therapy
articulation, factors in effectiveness, 1385
communication disorders, 1361
physical and recreational, 1512
physical, improved service program, 1502
program for severely retarded, 1523
sensory-motor articulation, evaluation, 1584
therapeutic milieu for mental retardates, 1522
Throid function, perinatal, and maturation, 1193
Thyroid gland, role in brain metabolism, 1092
Thyroxime metabolism, peripheral, 1221
Tissue heparin levels in fetus and newborn, 1222
Tissue metabolism in newborns after hypoxia, 1223
Tissue, neural, physiologically active substances, 1254
Toddler training and stimulation, 1362
Token reinforcement, time perspective change in institutionalized mental retardates, 1402
Toxicity, ammonia, intracerebral, 1257
Trainers, use of volunteers, 1266
Training
and research facility in child welfare, 1625
and stimulation, toddlers, 1362
characteristics, modifiability and consequences in curiosity behavior in educable retarded adolescents, 1380

cognitive, retarded children, 1378
developmental for the severely retarded, 1326
early intellectual, and school performance, 1336
ground provision for professional persons in retardation, 1623
habit, severely retarded adults, 1419
intensive, for severely retarded, 1347
intensive, institutionalized retarded girls, 1534
non-professional community project leaders, 1429
occupational, 1472
occupational, 1474-1479
pre-vocational, HIP, 1412
program for retarded blind and deaf children, 1363
program, functional, 1346
program, home, for mentally ill children, 1491
program, intensive, effects on motor skills of educable retarded, 1375
program, pre-placement, 1352
severely retarded, 1507
severely retarded adults from the back wards, 1364
service, resident, 1570
services and child development, 1324
the "untrainables," 1365
vocational, 1487
Tranquilizers, prenatal effects on offspring, 1028
Transfer and learning in discriminations, 1177
Transfer processes and learning, 1299
Transfusion, isosensitization, 1176
Transition-buffer unit for mentally retarded, 1626
Transplacental passage of fetal erythrocytes, 1224
TREK: a recreation program for retarded and multiple handicapped children, 1542
Tri-state comprehensive planning and implementation for mental retardation, 1627
Tryptophan hydroxylation in PKU, 1196
Turner's syndrome, cognitive function, 1216

University collaboration for hospital improvement, 1333
Untrainables, training, 1365
Upgrading of general care for severely retarded, 1524
Uric acid, serum, in mongolism, 1227
Urine, human, peptides, 1175
Urine screening test for chondroitins, 1083
Urinary chromatographic screening in mentally retarded children, 1565
Urinary taurine and serum uric acid in mongolism, 1227

Vascular resistance in fetal lung, control, 1219
Ventilitory assistance in respiratory distress syndrome, 1525

Verbal
interactions, linguistic analysis, 1389
learning, and retention, influence of advance organizer, 1386
learning, stimulus factors, 1213
mediation process in cerebral palsied, 1629
Viral hemorrhagic encephalitis of rats, 1094
Viruses
cell interaction replication and, differentiation, 1095
effects of human chromosomes, 1148
infection, coxackie, in pregnancy, 1034
transfer of infection across placenta, 1035
Visual perception, analytic studies, 1292
Vitamin B_6 and central nervous system function, 1262
Vocalizations, infants, 1220
Vocational
development of mentally retarded adolescents, 1401
exploration in community living, 1423
habilitation, self-care development, 1426
interest and sophistication assessment, 1311
preparation and placement program for high school educable retarded students, 1430
readiness, educable retarded adolescents, effects of 3 experimental curriculum units, 1376
rehabilitation and special education program for mentally retarded youth, 1433
rehabilitation certification, follow-up of retarded persons placed with Federal government, 1466
rehabilitation counselors, films, 1465
rehabilitation, intergenerational relationship, 1471
rehabilitation of physically and/or mentally handicapped, 1486
rehabilitation program, influence of low socio-economic class and parent participation, 1469
rehabilitation program, satellite workshops as extensions, 1483
rehabilitation services and special education, coordinated program for mentally retarded, 1443-1457
training, HIP, 1412
training of mentally retarded in public high schools, 1487
Volunteers, use as trainers of retarded children, 1366

Waiting list cohort, effect of a new institution, 1037
Wilson's disease, radioiron studies, 1082
Word association norms, adolescent retardates, 1229
Work
experience and occupations for educable retarded, curriculum development, 1374
experience for mentally retarded in last year of school, 1488

experience for retarded adolescents, 1432
experience program for 16-year-old retardate, 1437
experience program for mentally retarded in last year of school, 1438
experience program for mentally retarded in last year of school, 1439
experience program for retarded students in last year of school, 1440
opportunities for mentally retarded, 1473
program, placement-oriented, effectiveness for retarded adolescents and school drop-outs, 1461
related child development center, 1545
Workshop for retarded, coordination in metropolitan and suburban area, 1459
Workshop, satellite, as extensions of central vocational rehabilitation program, 1483

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